

VALLEY NISSAN

Mr. Gil Wistar
Alameda County Department
of Environmental Health
80 Swan Way #200
Oakland, CA, 94621

Feb 22, 90

Dear Gil,

Per your request I am forwarding to you one copy of the report furnished to us by Clayton Environmental for the property located at 5787 Scarlett Court in Dublin.

As we have recently closed escrow on this property I have contracted with Clayton for the completion of the clean-up of this property.

If you have any other questions, please give me a call.

Sincerely


Christopher M. Regalia
General Manager

91 MAY 23 AM 11:24

Clayton Environmental Consultants, Inc.

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

Additional Soil and Groundwater Investigation
at
5787 Scarlett Court
Dublin, California
for
Valley Nissan/Dodge

Clayton Project No. 27399.00
February 22, 1990

Executive Summary

Clayton Environmental Consultants, Inc., was retained by Valley Nissan/Dodge to install three monitoring wells and five boreholes for the purpose of sampling and analysis of soil and groundwater at 5787 Scarlett Court in Dublin, California (Figure 1). Previous reports prepared by Atlas Hydraulics (Atlas) indicated the possible presence of gasoline in the soil and groundwater in the area of a former underground storage tank at the site.

On January 22 and 23, 1990 Clayton installed four monitoring wells (MW-1, MW-2, MW-3, and MW-4) and five boreholes (BH-1, BH-2, BH-3, BH-4, and BH-5) at the site. The additional monitoring well MW-4 was installed with the client's permission to further define the vertical and lateral extent of soil and groundwater contamination.

Analysis of soil and groundwater samples indicated:

- The benzene concentration is above the State of California Department of Health Services (DHS) action level in groundwater sample MW-2. The other aromatics (toluene, xylene, and ethylbenzene) present in groundwater samples are below DHS action levels.

MW-2 was the only well to detect contaminated groundwater exceeding the state levels for constituents analyzed. Because the other monitoring wells are unaffected or have insignificant contaminant levels, we construe this to mean that the groundwater contamination in the vicinity of MW-2 is localized.

- Contaminated soils have been recognized as exceeding California State Leaking Underground Fuel Tank (LUFT) guidelines. These soils are defined by the analyses of soils from borings encircling the former excavation site.

Based on our investigation, we recommend the following:

- Additional soils should be removed from the ground and aerated onsite, or aerated in place, to reduce the levels of volatile hydrocarbons and BTEX compounds to acceptable levels. Excavation and onsite aeration can be accomplished by excavation of soils defined by boreholes as contaminated and placement of soils between sheets of plastic. Soils may be spread to an approximate thickness of 4 inches to enhance the surface area and volatilization process. The covering of the samples with plastic prevents migration of contaminated soils to adjoining clean soil. After a reasonable period of time (a few days to 1 week) soils need to be turned to expose additional areas to the aeration process. Select samples can then be collected at a later date of the soil piles for confirmation analyses. Based on soils analysis, the acceptable disposal method will be determined.
- Groundwater contamination recognized in MW-2 should be addressed. Because the estimated groundwater flow direction is south-southeast, contaminated groundwater appears confined to the MW-2 area and probably upgradient and beneath part of the former excavation site.

Clayton Environmental Consultants, Inc.

- As an initial step, this well should be monitored quarterly (every 3 months) to assess changes in hydrocarbons and BTEX levels. The other wells should be monitored every 6 months to assure that the contamination is not spreading laterally.
- If groundwater recovery and treatment is necessary, an additional well or wells will need to be installed in the former excavation site area to implement a groundwater recovery and treatment program.
- The site owner should inform the Regional Water Quality Control Board or the Alameda County Department of Health of these findings.

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1.0 INTRODUCTION

Clayton Environmental Consultants, Inc., was retained by Valley Nissan/Dodge to install three monitoring wells and five boreholes for the purpose of investigating the extent of subsurface contamination by sampling and analysis of soil and groundwater at 5787 Scarlett Court in Dublin, California (Figure 1). Previous reports prepared by Atlas Hydraulics (Atlas) indicated the possible presence of gasoline in the soil and groundwater in the area of a former underground storage tank.

The work was authorized by Mr. Ron Imperiale on January 16, 1990, by approving Clayton's Proposal No. 90-B-010 and its accompanying Terms and Conditions. Clayton commenced field work on January 22, 1990, after obtaining the permits to install the monitoring wells from the Alameda County Flood Control and Water Conservation District, Zone 7 (Zone 7). A copy of this permit is provided in Appendix A.

2.0 BACKGROUND

Clayton Environmental Consultants, Inc., was retained by Valley Nissan/Dodge to conduct a subsurface investigation on 5787 Scarlett Court in Dublin, California. The purpose of this investigation was to evaluate the previous work performed at the site, recommend further work to be performed, if necessary, and assess the need for remediation at the site. This investigation included soil and groundwater sampling at the site.

The site is located in Dublin, north of Highway 580, and north of Scarlett Court (see Figure 1). Our review of results of soil and water sampling by Atlas revealed the presence of gasoline beneath the property.

2.1 PREVIOUS WORK REVIEW

A review of previous work was done as part of the Phase I assessment. The Phase I report is included as Appendix B to facilitate review of both documents by interested parties.

3.0 FIELD PROCEDURES

Clayton commenced field activities related to the installation and sampling of four monitoring wells (MW-1, MW-2, MW-3, and MW-4) and five boreholes (BH-1, BH-2, BH-3, BH-4 and BH-5) at the site on January 22, 1990 (Figure 2). The field work was completed on January 26, 1990. The following subsections address the completion of each of the tasks outlined in Clayton's proposal dated January 16, 1990.

3.1 SOIL BOREHOLE INSTALLATION

Clayton supervised the drilling of nine boreholes (BH), four of which were converted into monitoring wells. Datum Exploration Company, of Pittsburg, California, provided borehole and well installation services under subcontract to Clayton.

The boreholes were drilled using a Mobile B-61 drilling rig. Before work commenced, the augers and soil sampler were steam cleaned. Appendix C presents the borehole lithological logs prepared while drilling was in progress.

Soil samples were collected in 2.5-inch diameter brass tubes, each measuring 6 inches long. Tubes and their plastic caps were precleaned with tri-sodium phosphate (TSP), triple-rinsed with tap water, then triple-rinsed with deionized water prior to use. The tube ends were covered with precut aluminum foil squares, capped with a plastic cap, sealed with electrical tape, labeled, and placed into a pre-cooled ice chest chilled to 4°C prior to shipment to Clayton's environmental laboratory. Upon delivery to the laboratory, a chain-of-custody form was completed listing analyses required. This form follows each set of analyses and is included in Appendix D.

Soil boring samples were collected and analyzed using combined EPA Method 5030/8015-8020, for benzene, toluene, ethylbenzene, and xylene (BTEX) and gasoline.

To collect undisturbed soil samples, three brass tubes were placed in an 18-inch, split barrel Sprague and Hennwood sampler, which was attached to the drilling rod. The sampler and the rod were inserted through the hollow-stem auger until the current borehole depth was reached. Once the sampler and rod were in position, a 140 pound hammer positioned 30 inches above

the sampling equipment was allowed to free-fall onto the rod, advancing the sampling assembly to obtain undisturbed samples. This technique was used to drive the sampler 18 inches into undisturbed soil. The sampler was then pulled from the borehole, disassembled, and the three brass tubes were separated for visual inspection and labeling.

Soil samples were collected at the following locations:

<u>Boring</u>	<u>Sampling Interval (feet)</u>	<u>Boring</u>	<u>Sampling Interval (feet)</u>
MW-1	5.0 - 5.5 10.0 - 10.5 15.0 - 15.5	BH-1	4.0 - 4.5 4.5 - 10.0
MW-2	3.0 - 3.5 9.5 - 10.0 14.5 - 15.0	BH-2	No sample
MW-3	4.5 - 5.0 9.5 - 10.0 15.0 - 15.5	BH-3	No sample
MW-4	5.5 - 6.0 9.5 - 10.0	BH-4	4.0 - 4.5 8.5 - 9.0
		BH-5	5.0 - 5.5 10.0 - 10.5

BH-2 and BH-3 were terminated early at depths of 3 and 2.5 feet, respectively. A slight gasoline odor was detected in both borings so the hole was progressively relocated westerly as far as possible up against the cement floor of the warehouse, which resulted in the location of BH-4.

Waste drill cuttings were placed into Department of Transportation (DOT)-approved drums for proper disposal at a later date. These drums were labeled with the name of the site, address, and well number, and left at the site and deemed to be the responsibility of our client.

3.2 MONITORING WELL CONSTRUCTION AND SAMPLING

Monitoring wells MW-1, MW-2, MW-3, and MW-4 were drilled to depths of 15, 18, 15, and 19 feet, respectively. A 4-inch diameter PVC schedule 40 well casing and screen (0.020-inch) was installed into each borehole. All well casings, screens, and bottom plugs were precleaned prior to installation into the borehole. Sand was added into the annular space to 1 foot above the screened section of the casing. A 1-foot bentonite seal was placed above the sand pack by hydrating of bentonite pellets. A neat cement seal was then placed over the bentonite plug (Figures 3, 4, 5, and 6).

Monitoring wells were developed to remove silt from the sand pack on January 23, 1990. The purged water was stored onsite in a DOT-approved drum pending laboratory analysis results. These drums, as well as those containing drill cuttings, should be disposed of legally by Valley Nissan.

On January 26, 1990, groundwater was purged from the monitoring wells with a submersible electric pump and sampled with a Teflon™ bailer. Details of the purging are provided in Appendix E. Purge water was stored in drums and left onsite for legal disposal by Valley Nissan. The pumps and the bailers were precleaned with a steam cleaner, washed in TSP, triple-rinsed in tap water, and triple-rinsed in deionized water.

Water samples were placed in containers provided by Clayton's environmental laboratory, labeled, and placed into an ice chest pre-cooled to 4°C for shipment to Clayton's laboratory. Upon delivery to the laboratory, a chain-of-custody form was completed listing analyses required. This form is included with laboratory data sheets in Appendix D.

Groundwater samples collected on January 15, 1990, were analyzed using combined EPA Method 8015/8020 for gasoline and benzene, toluene, xylene, and ethylbenzene (BTXE).

4.0 LABORATORY RESULTS AND DATA ANALYSES

The soil samples are identified by location and sampling depth. Soil and groundwater analyses results are summarized in the following tables and described in detail in the analytical laboratory reports in Appendix D.

4.1 SOIL SAMPLE ANALYSES

The soil sample results were compared to the guidelines set forth in the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual. The LUFT guidelines are shown at the bottom of Table I for comparison to the borehole analytical results. As shown in Table 1, BH-1-4 soil exceeded the LUFT guidelines for benzene and ethylbenzene. MW-1 soil also exceeded the LUFT guidelines for ethylbenzene. MW-2 soil exceeded the LUFT guidelines for TPH as gasoline and all BTEX volatiles. MW-3 soil exceeded the LUFT guidelines for toluene.

TABLE 1

Parameters Detected in Soil Samples
Collected on January 22 and 23, 1990

<u>Sample ID</u>	<u>TPH-G</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylene</u>	<u>Ethylbenzene</u>
BH-1-4	88	0.2	< 0.1	0.4	1.7
BH-1-9.5	3.8	0.32	0.011	0.068	0.14
BH-4-5.4	2.3	0.023	0.17	0.009	< 0.005
BH-4-8.5	8.3	0.082	0.012	0.2	0.29
BH-5-5	< 0.3	< 0.005	0.075	< 0.005	< 0.005
BH-5-10	< 0.3	< 0.005	0.064	< 0.005	< 0.005
MW-1-5.5	89	< 0.1	0.2	0.6	2.1
MW-1-10.5	< 0.3	< 0.005	0.015	< 0.005	< 0.005
MW-1-15.5	< 0.03	< 0.005	< 0.005	< 0.005	< 0.005
MW-2-3	40	0.7	2.7	4.6	1.3
MW-2-9.5	760	8	< 5	6	17
MW-2-14.5	44	0.22	0.1	0.4	0.45
MW-3-4.5	1.4	< 0.005	0.6	0.008	< 0.005
MW-3-9.5	< 0.3	< 0.005	0.016	< 0.005	< 0.005
MW-3-15	< 0.3	< 0.005	< 0.005	< 0.005	< 0.005
MW-4-5.5	< 0.3	< 0.005	0.17	< 0.005	< 0.005
MW-4-9.5	< 0.3	< 0.005	0.022	< 0.005	< 0.005
LUFT Guidelines	100	0.3	0.3	1	1

All concentrations are in milligram per kg (mg/kg) which is approximately equivalent to and commonly listed as parts per million (ppm).

4.2 GROUNDWATER SAMPLE ANALYSES

The groundwater sample results were compared to the California DHS state action levels described in Marshack, 1988 and are shown at the bottom of Table 2 for comparison with the groundwater analytical results obtained. MW-3 and MW-4 are not listed in the table because the parameters analyzed were below the detection limits for these two wells.

Groundwater from MW-2 was the only groundwater sampled to exceed DHS action levels for benzene.

TABLE 2

**Parameters Detected in Groundwater Samples
Collected on January 26, 1990**

<u>Sample ID</u>	<u>TPH-G</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylene</u>	<u>Ethylbenzene</u>
MW-1	0.08	< 0.0004	< 0.0003	0.001	0.001
MW-2	8.3	3.0	0.014	0.54	0.54
DHS Action Levels	N/A	0.0007	0.1	0.68	0.62

N/A Not Available

All concentrations are milligram per liter (mg/L) which is approximately equivalent to and commonly listed as parts per million (ppm).

5.0 CONCLUSIONS

Based on the results of our investigations and the soil and groundwater analyses performed, we conclude the following:

- North of the former excavation site, soil sample MW-1-5.5 indicates ethylbenzene in excess of the LUFT guidelines. Also, sample BH-1-4 exceeds ethylbenzene guidelines, and sample BH-1-9.5 exceeds the benzene guidelines.
- Southwest of the former excavation site, MW-2 shows soils exceed the LUFT guidelines for TPH as gasoline and all the volatiles (BTEX) listed.
- Southeast of the former excavation site, MW-3 contains shallow soil exceeding LUFT guidelines for toluene.
- West, south, and east of the former excavation site, the limits of soil contamination appear defined based on information from BH-4, MW-4, and BH-5, respectively.
- Groundwater sampled in MW-2 exceeded the DHS action levels for benzene. Groundwater samples from MW-3 and MW-4 were below the detection limits for the constituents analyzed. Groundwater sampled from MW-1 had detectable TPH as gasoline, xylene, and ethylbenzene, but well below the DHS action levels.

6.0 RECOMMENDATIONS

Based on our investigations and laboratory results, we recommend the following:

- Additional soils should be removed from the ground and aerated onsite, or aerated in place, to reduce the levels of volatile hydrocarbons and BTEX compounds to acceptable levels. Excavation and onsite aeration can be accomplished by excavation of soils defined by boreholes as contaminated and placement of soils between sheets of plastic. Soils may be spread to an approximate thickness of 4 inches to enhance the surface area and volatilization process. The covering of the samples with plastic prevents migration of contaminated soils

to adjoining clean soil. After a reasonable period of time (a few days to 1 week) soils need to be turned to expose additional areas to the aeration process. Select samples can then be collected at a later date of the soil piles for confirmation analyses. Based on soils analysis, the acceptable disposal method will be determined.

- Groundwater contamination recognized in MW-2 should be addressed. Because the estimated groundwater flow direction is south-southeast, contaminated groundwater appears confined to the MW-2 area and probably upgradient and beneath part of the former excavation site.
- As an initial step, this well should be monitored quarterly (every 3 months) to assess changes in hydrocarbons and BTEX levels. The other wells should be monitored every 6 months to assure that the contamination is not spreading laterally.
- If groundwater recovery and treatment is necessary, an additional well or wells will need to be installed in the former excavation site area to implement a groundwater recovery and treatment program.
- The site owner should inform the Regional Water Quality Control Board or the Alameda County Department of Health of these findings.

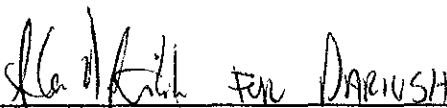
7.0 DISCLAIMER

The information and opinions rendered in this report are exclusively for your use and will not be distributed or published without your consent. The information in this report is given in response to your limited assignment and should be evaluated only in light of that assignment. We accept responsibility for the competent performance of our duties in executing the assignment and preparing this report in accordance with the normal standards of our profession but disclaim any responsibility for consequential damages.

8.0 REFERENCES

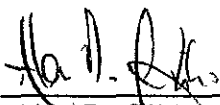
Marshack, Jan B., 1988. A compilation of Water Quality Goals. California Regional Water Quality Control Board. Central Valley Region.

This report prepared by:



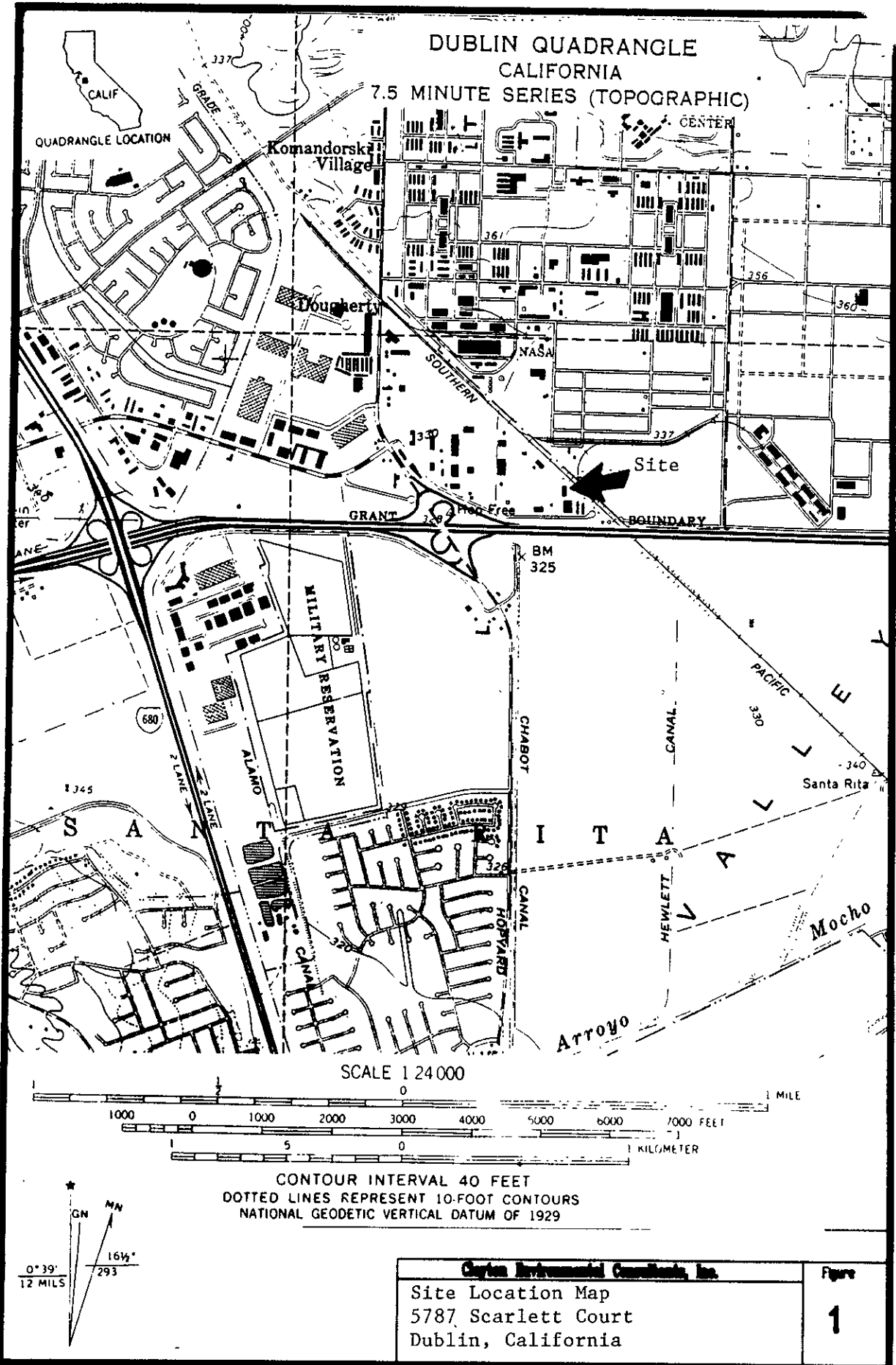
Dariush Dastmalchi
Geologist

This report reviewed by:



Alan D. Gibbs
Supervisor, Geology Group

FIGURES





Clayton Environmental Consultants, Inc.

Site Location Map
5787 Scarlett Court
Dublin, California

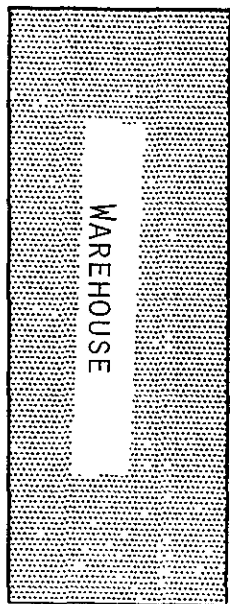
Figure
1

EXPLANATION

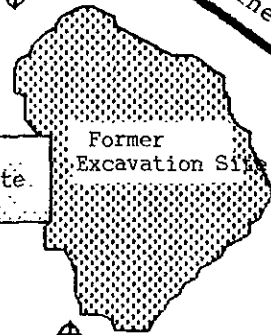
Monitoring Well 
 Borehole 



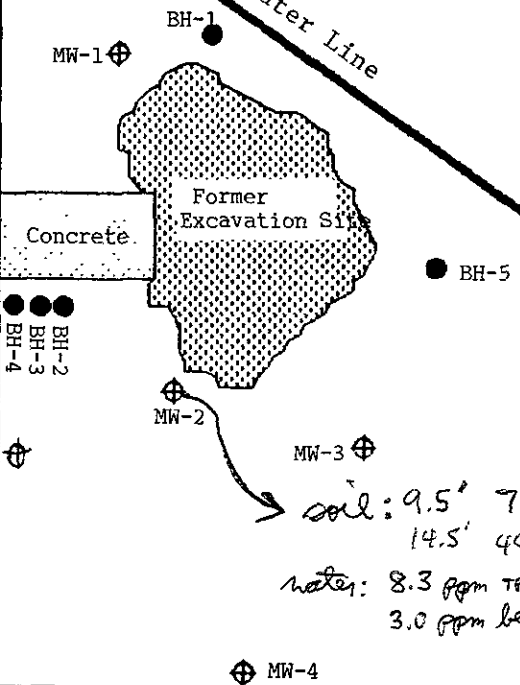
High Pressure Water Line



Concrete



Estimated Groundwater
Flow Direction



soil: 9.5' 760 ppm TPH-G
 14.5' 44 ppm
 water: 8.3 ppm TPH-G
 3.0 ppm benzene

Clayton Environmental Consultants, Inc.	Figure
Site Plan 5787 Scarlett Court Dublin, California	2 0

EXPLANATION



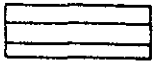
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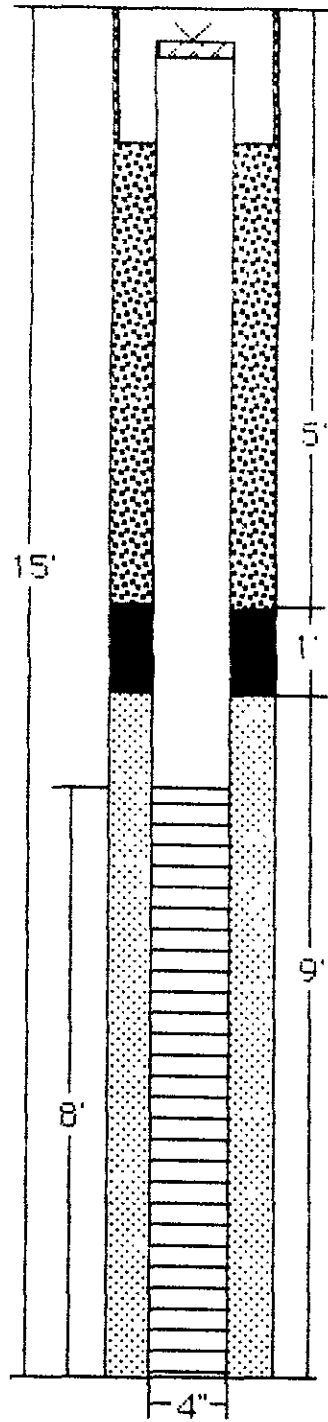
Bentonite



Sand



4" PVC Schedule 40
Casing with 0.01" Slot



Clayton Environmental Consultants, Inc.
Monitoring Well Diagram (MW-1)
5787 Scarlett Court
Dublin, California

Figure

3

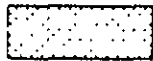
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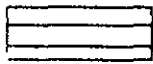
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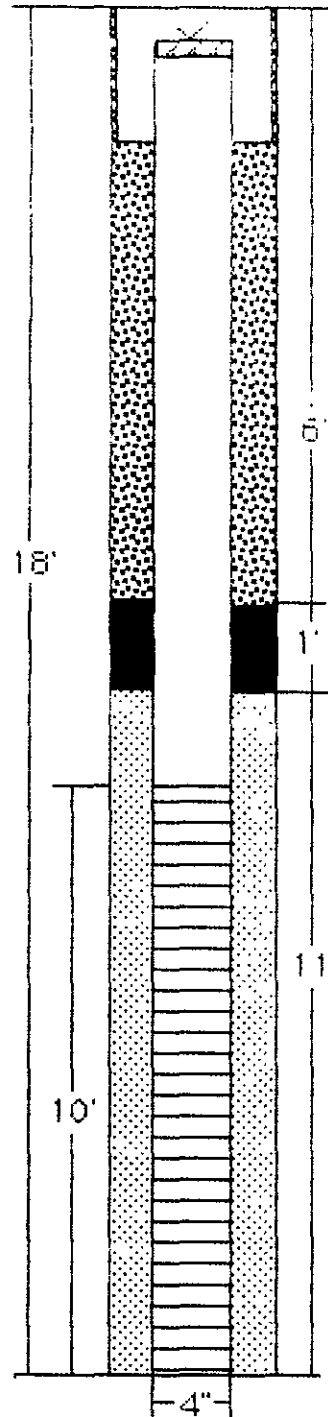
Bentonite



Sand



4" PVC Schedule 40
Casing with 0.01" Slot



Clayton Environmental Consultants, Inc.
Monitoring Well Diagram (MW-2)
5787 Scarlett Court
Dublin, California

Figure
4

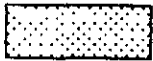
EXPLANATION



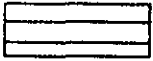
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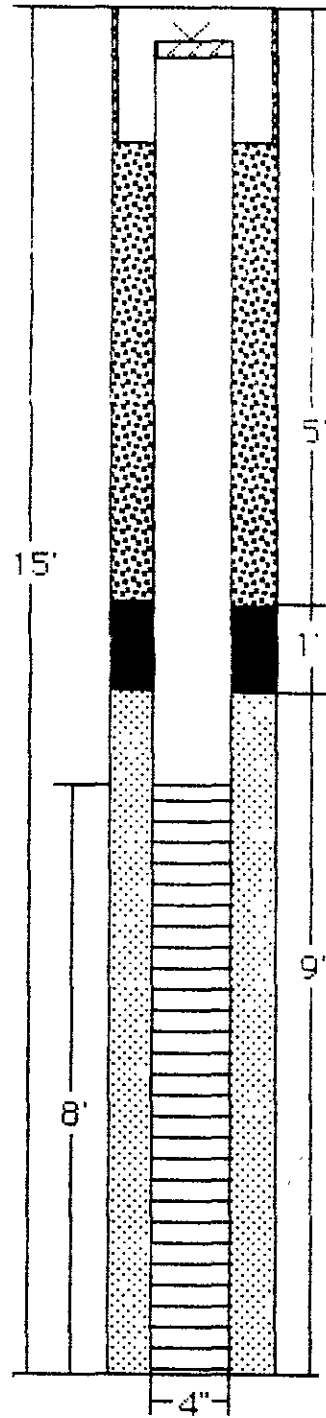
Bentonite



Sand



4" PVC Schedule 40
Casing with 0.01" Slot



Clayton Environmental Consultants, Inc.

Monitoring Well Diagram (MW-3)
5787 Scarlett Court
Dublin, California

Figure

5

EXPLANATION



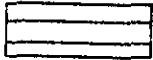
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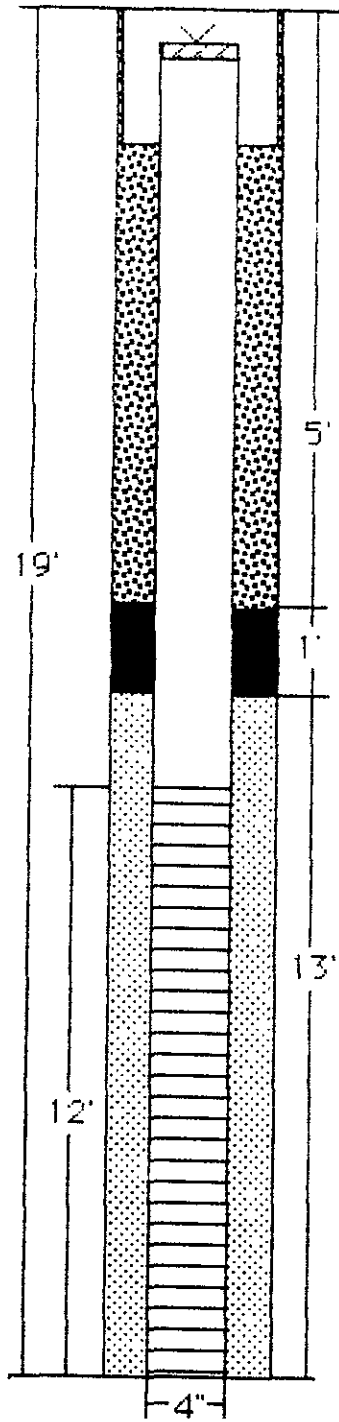
Bentonite



Sand



4" PVC Schedule 40
Casing with 0.01" Slot



Clayton Environmental Consultants, Inc.

Monitoring Well Diagram (MW-4)
5787 Scarlett Court
Dublin, California

Figure

6

APPENDIX A
PERMITS



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

FOR OFFICE USE

(1) LOCATION OF PROJECT 5787 Scarlett Court Dublin, CA 94568

PERMIT NUMBER 90025 LOCATION NUMBER

(2) CLIENT Name Valley Nissan/Dodge Address 6015 Scarlett Ct. Phone City Dublin, Zip 94568

PERMIT CONDITIONS

Circled Permit Requirements Apply

(3) APPLICANT Name Dariush Dastmalchi Clayton Environmental Consultants Inc. Address 1252 Quarry Lane Phone 426-2609 City Pleasanton Zip 94566

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.

(4) DESCRIPTION OF PROJECT Water Well Construction Geotechnical Investigation Cathodic Protection General X Well Destruction Contamination

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, irrigation, and monitoring wells unless a lesser depth is specially approved.

(5) PROPOSED WATER WELL USE Domestic Industrial Irrigation Municipal Monitoring X Other

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.

(6) PROPOSED CONSTRUCTION Drilling Method: Mud Rotary Air Rotary Auger X Cable Other

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

E. WELL DESTRUCTION. See attached.

* Four monitoring wells up to twenty feet in depth cm, 29 Jan 90

DRILLER'S LICENSE NO. 480802 (C-57)

WELL PROJECTS Drill Hole Diameter 10 in. Maximum Casing Diameter 4 in. Depth 15 ft. Surface Seal Depth 6 ft. Number 3

GEOTECHNICAL PROJECTS Number of Borings 4 Maximum Hole Diameter 8 in. Depth 15 ft.

(7) ESTIMATED STARTING DATE 1/22/90 ESTIMATED COMPLETION DATE 1/22/90

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

Approved Wyman Hong Date 16 Jan 90

APPLICANT'S SIGNATURE Dariush Dastmalchi Date 1/16/90

APPENDIX B

PHASE I ENVIRONMENTAL ASSESSMENT REPORT

Clayton Environmental Consultants, Inc.

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

**Phase I Environmental Assessment
at
5787 Scarlett Court
Dublin, California
for
Valley Nissan/Dodge
Dublin, California**

**Clayton Project No. 27054.00
January 8, 1990**

Executive Summary

Clayton Environmental Consultants, Inc., was retained by Valley Nissan/Dodge to perform a Phase I Environmental Assessment of a property located at 5787 Scarlett Court in Dublin, California. The property, which includes a 9,480 square foot warehouse, is currently occupied by Valley Nissan/Dodge and used as a parking lot.

The investigation included a site visit and review of existing documents in local and state agencies relating to the site and its surrounding area. This investigation did not include any physical sampling of materials from the site.

Based on our limited investigation, we concluded that:

- Two 12,000-gallon gasoline tanks were removed from the site in October, 1988.
- The laboratory results from soil samples collected at the time of backfilling indicate that soil used is "clean" (TPH-G concentration of less than 100 mg/kg); however, there are still contaminated soils left in place.

There are patches of floor covering in the warehouse that are suspected to contain asbestos..

- There are oil stains inside on the concrete floor and outside of the warehouse on the asphalt. The extent of the contamination is not known.
- A pile of soil mixed with pieces of asphalt is stored on the northwest corner of the property.
- Nearby or adjacent properties include three sites where leaking underground storage tanks have been identified. Documentation shows that remediation is in progress.

We offer the following recommendations, based on the results of our investigations:

- Further investigation to determine the extent of contamination in soil and groundwater
- Preparation of a comprehensive remediation plan for Regional Water Quality Control Board and Alameda County Department of Environmental Health approval
- Removal of the soil and asphalt pile located on the northwest corner of the property
- Removal of a small amount of the floor covering which may contain asbestos
- Clarifying the status on the notice of violation served in May 26, 1989 to Lew Doty by the Alameda County Department of Environmental Health.
- Cleaning of the oil stains on the concrete and asphalt, and investigating the extent of contamination
- Sampling the water in the existing well on the property.

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Phase I Environmental Assessment
at
5787 Scarlett Court
Dublin, California
for
Valley Nissan/Dodge
Dublin, California

Clayton Project No. 27054.00
January 8, 1990

Clayton Environmental Consultants, Inc.

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

1.0 INTRODUCTION

Clayton Environmental Consultants, Inc., was retained by Valley Nissan/Dodge to perform a Phase I environmental assessment of the site currently used by Valley Nissan/Dodge as a parking lot, at 5787 Scarlett Court in Dublin, California (Figure 1). The purpose of the study was to evaluate potential environmental problems that may be associated with the site resulting from previous or present operations at or in the vicinity of the property.

This assessment was authorized by Mr. Chris Regalia on December 12, 1989, by approving Clayton's Proposal No. 89-B-204 and its accompanying Terms and Conditions. An asbestos-containing building materials survey was not performed; however, the potential for the presence of asbestos-containing materials is discussed here.

The assessment was conducted by Mr. Dariush Dastmalchi, geologist with Clayton.

1.1 SCOPE OF WORK

Our Phase I environmental assessment included:

- A **search** for onsite underground tanks, pits, ponds, and sumps
- A **visual** search for asbestos-containing materials (no sampling was performed)
- A **visual** search for significant sources of potential PCB release
- An **evaluation** of onsite hazardous substance storage practices
- An **evaluation** of historical site use based upon readily available aerial photos and planning and building records
- An **overview** of use of surrounding properties that could potentially impact the subject site
- A **review** of relevant regulatory agency records to gather historical information that may impact environmental issues at the site

2.0 PROPERTY DESCRIPTION

The property assessed in this report is located at 5787 Scarlett Court, in Dublin, California and bordered by 84 Lumber, Valley Nissan/Dodge, City of Dublin Corporate Yard, and Federal Government Property (Figure 2). The site, currently used by Valley Nissan/Dodge as a parking lot, includes a 9,480 square foot warehouse.

3.0 HISTORICAL BACKGROUND

The following information was obtained from the Alameda County Assessor's office, City of Dublin Planning office, documents provided to Clayton by Mr. Regalia (Appendix A), and an analytical report provided by Atlas Hydraulics (Appendix B).

In 1968, Demar Plastering Company (DPC) purchased the undeveloped property from John and Mary Crowell. A 9,480 square foot warehouse was constructed in 1969, and two 12,000-gallon tanks were installed in 1970. DPC continued using the property as a local office and warehouse until 1986.

In 1986, Land S. Ranches (Clayton understands this is a company owned by Lew Doty Cadillac) purchased the property from DPC and, according to the Alameda County Assessor's Office, they are the current owners.

In 1987, Lew Doty obtained a permit from the City of Dublin to build an interior office and a bathroom within the warehouse.

Documents provided by Mr. Regalia show that on January 1, 1988, Johnson Precision Tank Testing, under contract to Lew Doty, performed a tank tightness test on one 7,500-gallon tank and one 10,000-gallon tank on the subject property (Appendix A). It is our understanding that only two 12,000-gallon tanks were in the property, therefore we believe the results from these tests are not reliable. According to documents in Appendix A, on November 1, 1988, Atlas Hydraulic Corporation (Atlas) did a precision tank test on a 3,000-gallon underground unleaded tank located on 6301 Scarlett Court in Dublin. The test results revealed that the tank was free of leaks. It was subsequently removed, and the appropriate agencies were informed. Clayton believes that this is not related to work performed on the subject property and was included in the report by mistake.

On October 28, 1988, Atlas, under contract with Lew Doty, removed the two 12,000-gallon tanks and transported them to the H & H Ship Service (H & H) facility for disposal. Four soil and two water samples were taken and analyzed for total petroleum hydrocarbons as gasoline (TPH-G) using the Department of Health Services (DHS), and Environmental Protection Agency (EPA) Method 8020 for benzene (B), toluene (T), xylene (X), and ethylbenzene (E). Laboratory results indicated that both groundwater and soil samples had TPH-G contaminations ranging from 180 mg/l to 1,100 mg/kg (Table 1).

On November 3 and 4, 1988, H & H, under subcontract to Atlas, vacuumed approximately 5,000-gallons of water from the excavation pits and transported it to its TSD site (Appendix A). Atlas removed an additional 40 yards of contaminated soil and proceeded to aerate the soil onsite to be used for backfilling the excavation pit. On December 19, 1988, Trace Analysis Laboratory (Trace) took six soil samples from the aerated stockpiles and analyzed the samples for TPH-G and BTXE. Laboratory analysis indicated TPH-G contaminations ranging from 16

to 84 mg/kg (Table 2). Atlas continued aerating until August 14, 1989, when Trace sampled the aerated stockpiles in nine places. The laboratory results indicated that TPH-G and BTXE concentrations were all below detection limits (Appendix B)

On January 9, 1989, Mr. Louis Richardson, an engineering geologist for Atlas, in a letter to Mr. Tom Peacock of Alameda County Department of Environmental Health (ACDEH), requested to backfill the excavation pits with aerated soil containing less than 100 mg/kg TPH-G and discharge the contaminated water that had collected in the excavation pit into the storm drain (Appendix A).

On March 3, 1989, ACDEH set specific guidelines for resolving the problems onsite in a letter to Mr. Doty. ACDEH also approved backfilling the excavation site with the condition that any soil contaminated with a TPH-G concentration higher than 100 mg/kg may have to be excavated at a later date. ACDEH denied the request for discharge into the storm drain.

On February 22, 1989, Trace sampled and analyzed the water collected in the excavation pit for TPH-G and BTXE. Two water samples had TPH-G concentrations of 7.7 and 16 ug/l (Table 3). Based on these results, Mr. Richardson requested a permit for one-time discharge of contaminated water into the sewer lines. On March 23, 1989, Dublin San Ramon Services District (DSRSD) approved Mr. Richardson's request for discharging the contaminated water into the sewer lines.

On November 7, 1988 and May 10, 1989, Trace, under subcontract to Atlas, collected one water and eight soil samples from the excavation pit. Laboratory analysis results indicated TPH-G concentrations ranging from 59 to 2,200 mg/kg in soil samples and 32 mg/l in water (Tables 4 and 5).

On May 26, 1989, Lew Doty Cadillac was served with a notice of violation by ACDEH, for not responding to the agency's letter dated March 3, 1989.

On June 12, 1989, Mr. Richardson of Atlas, provided Lew Doty Cadillac with a work plan to address the issues identified by the ACDEH.

On November 27, 1989, Atlas recommended to Mr. Doty that a soil-gas survey be performed. Additionally, the installation of three monitoring wells was recommended.

4.0 ONSITE FINDINGS

This section presents our findings concerning potential onsite environmental impairments.

4.1 UNDERGROUND STORAGE TANKS

Two 12,000-gallon gasoline tanks were removed from the site in October, 1988, as described in previous sections.

4.2 PCB-CONTAINING MATERIALS

No suspected PCB-containing materials such as transformers or fluorescent lights were observed onsite.

4.3 ASBESTOS-CONTAINING MATERIALS

An asbestos survey was not undertaken as a part of this assessment; however, a visual search for materials commonly known to contain asbestos was performed during our site inspection.

Clayton identified patches of floor covering which may contain some asbestos (Figure 4).

4.4 CHEMICAL SPILL

Several locations inside and outside the building are stained with oil (Figure 4). The extent of contamination is not known.

4.5 WATER WELL

Lew Doty owns and operated a well located on the east side of the building (Figures 3 and 4).

4.6 SOIL STOCKPILE

Clayton also observed a stockpile of soil mixed with pieces of asphalt in the northwest corner of the property (Figure 2).

5.0 REGIONAL FINDINGS

Clayton reviewed nearby sources that could pose a potential threat to the subject site. This section presents our findings.

5.1 ADJACENT PROPERTIES

During the walkthrough, it was noted that 84 Lumber sells treated lumber. A salesman at 84 Lumber said that the lumbers are treated with copper chromium arsenate (CCA). He also stated that there are no underground storage tanks on the property.

While conducting a visual inspection of nearby properties, we noticed three abandoned fuel dispensers (labeled as diesel and unleaded gasoline, with no identification on the third dispenser) on the property directly to the north of Scotsman Company (Figure 2). The City of Dublin planning office does not have any records relating to the tanks or a current address for the owner.

5.2 REGULATORY AGENCY REVIEW

Clayton contacted the following agencies during the course of this assessment:

- Regional Water Quality Control Board (RWQCB), Oakland
- Alameda County Assessor's Office (Public Records), Oakland
- U.S. Geological Survey, Menlo Park
- City of Dublin Planning Office, Dublin

We consulted the following references that have been prepared by public agencies:

- Fuel Leaks List, California RWQCB, San Francisco Bay Region
- Hazardous Waste and Substances Site List, California (June, 1989)
- National Priorities List (NPL), Environmental Protection Agency (EPA) (March, 1989)
- List of Sites, as contained in the January, 1989 Bond Expenditure Plan

Sites with documented environmental problems that operate within a 1/2-mile radius of the subject property are listed below (for more information, see Appendix C):

Shell gas station 5251 Hopyard Road, Pleasanton	Fuel leak (Remediation in progress)
Scotsman Rental 6055 Scarlett Court	Fuel leak (Remediation in progress)
Valley Nissan/Volvo 6015 Scarlett Court	Waste oil contamination (case pending)

6.0 CONCLUSIONS

We provide the following conclusions:

- The tank tightness test performed in January, 1988, is not valid and, therefore, these tanks may have been leaking prior to their removal.
- The information about the 3,000-gallon tank is not related to the subject property.
- Tanks have leaked extensively and groundwater may have been impacted as shown in Tables 1, 3, and 4.
- The excavation pit was backfilled sometime after May 10, 1989, with "clean" (TPH-G and BTXE concentrations less than detection limits) aerated soil.
- More excavation may be required by ACDEH. Table 4 shows that there is still contaminated soil in the ground, above the limit of 100 mg/kg for TPH-G.
- Based on the estimated groundwater direction (Figure 2), we believe the negative effects to adjacent or nearby properties are not significant.

7.0 RECOMMENDATIONS

Clayton recommends the following actions by Valley Nissan/Dodge:

- Further investigation to determine the extent of the contamination in the soil and groundwater. This may require exploratory drilling and installation of monitoring wells as well as a soil gas survey.

- Preparing a comprehensive remediation plan to be submitted to the RWQCB and ACDEH for approval.
- Removal of the remaining stockpile on the northwest corner of the property (Figure 3).
- Removal of the floor coverings. Since the amount of floor covering is fairly small, we recommend that it be treated as hazardous material and removed from the property. This appears to be more economically feasible than performing an asbestos survey and sampling prior to removal.
- Clarify the status on notice of violation served to Lew Doty by ACDEH.
- Cleaning of the oil stained areas, in addition to investigating the extent of contamination from these spills.
- Sampling and analyzing of the existing well for TPH-G and BTXE (Figure 2).

8.0 DISCLAIMER


The information and opinions rendered in this report are exclusively for your use and will not be distributed or published without your consent. The information in this report is given in response to your limited assignment and should be evaluated only in light of that assignment. We accept responsibility for the competent performance of our duties in executing the assignment and preparing this report in accordance with the normal standards of our profession but disclaim any responsibility for consequential damages.

This report prepared by:



Dariush Dastmalchi
Geologist

This report reviewed by:



Frederick G. Moss, P.E.
Supervisor, Remediation Group

January 8, 1990

TABLES

TABLE 1
Laboratory Results for
Samples Taken on October 28, 1989

Sample ID	Matrix	TPH-G	Benzene	Toluene	Xylenes	Ethylbenzene
#1 - north end, west tank	Soil	1,100 mg/kg*				
#3 - south end, west tank	Soil	1,100 mg/kg				
#4 - north end, east tank	Soil	500 mg/kg				
#6 - south end, east tank	Soil	3,400 mg/kg	380 mg/kg	1,000 mg/kg	200 mg/kg	21 mg/kg
#2	Water	350 mg/L**	11 mg/L	8.3 mg/L	22 mg/L	7.3 mg/L
#5	Water	180 mg/L	27 mg/L	4 mg/L	16 mg/L	7.2 mg/L

TABLE 2
Laboratory Results for
Samples Taken on December 19, 1989

Sample ID	Matrix	TPH-G	Xylenes
#13	Soil	16 mg/kg	< 300 mg/kg
#14	Soil	84 mg/kg	< 300 mg/kg
#15	Soil	84 mg/kg	0.67 mg/kg

TABLE 3
Laboratory Results for
Samples Taken on February 22, 1989

Sample ID	Matrix	TPH-G	Benzene	Toluene	Xylenes	Ethylbenzene
#18	Water	7.7 ug/L***	0.81 ug/L	0.57 ug/L	0.92 ug/L	< 0.4 ug/L
#19	Water	16 ug/L	0.72 ug/L	0.56 ug/L	0.61 ug/L	< 0.4 ug/L

* Milligrams per kilogram
 ** Milligrams per liter
 *** Micrograms per liter

TABLE 4

Laboratory Results for
Samples Taken on November 7, 1989

Sample ID	Matrix	TPH-G	Benzene	Toluene	Xylenes	Ethylbenzene
#7	Water	32 mg/L *	5.5 mg/L	3.1 mg/L	7.0 mg/L	0.75 mg/L
#8	Soil	740 mg/kg**	18 mg/kg	36 mg/kg	65 mg/kg	16 mg/kg
#9	Soil	1,500 mg/kg	29 mg/kg	39 mg/kg	94 mg/kg	27 mg/kg
#10	Soil	610 mg/kg	11 mg/kg	16 mg/kg	11 mg/kg	14 mg/kg
#11	Soil	2,200 mg/kg	46 mg/kg	70 mg/kg	210 mg/kg	62 mg/kg

TABLE 5

Laboratory Results for
Samples Taken on May 10, 1989

Sample ID	Matrix	TPH-G	Benzene	Toluene	Xylenes	Ethylbenzene
#20	Soil	59 mg/kg	<0.006 mg/kg	<0.006 mg/kg	<0.03 mg/kg	<0.008 mg/kg
#21	Soil	210 mg/kg	3.6 mg/kg	7.3 mg/kg	30 mg/kg	3.4 mg/kg
#22	Soil	960 mg/kg	16 mg/kg	7.3 mg/kg	100 mg/kg	28 mg/kg
#23	Soil	210 mg/kg	5.2 mg/kg	7.6 mg/kg	45 mg/kg	5.5 mg/kg

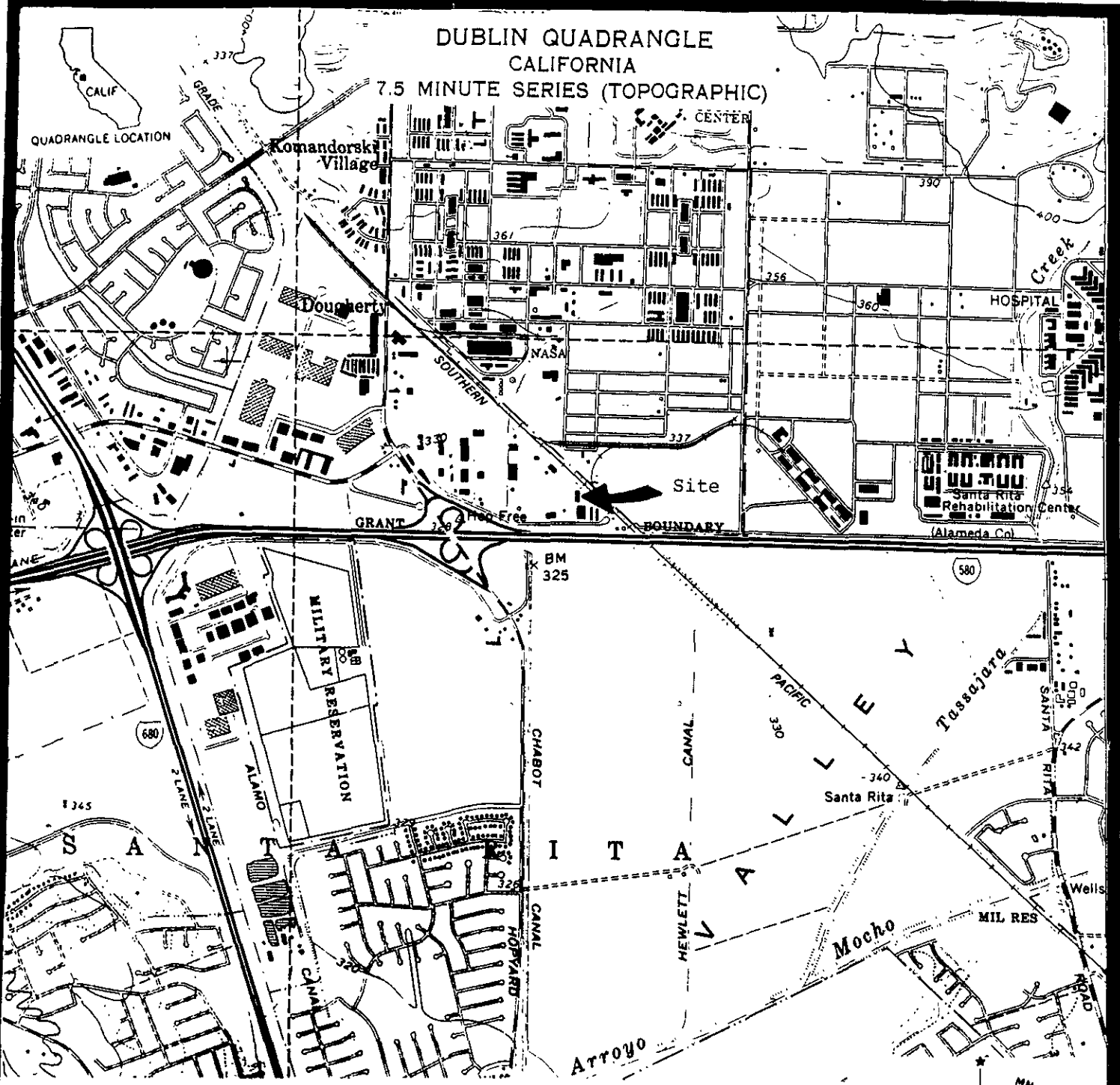
* Milligrams per liter

** Milligrams per kilogram

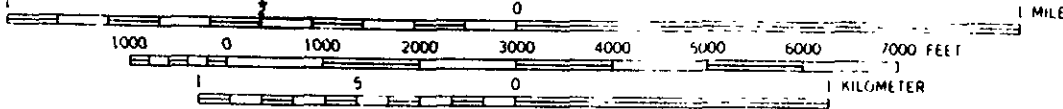
FIGURES

DUBLIN QUADRANGLE
CALIFORNIA

7.5 MINUTE SERIES (TOPOGRAPHIC)



SCALE 1:24,000



CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 10 FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTM GRID AND 1980 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Clayton Environmental Consultants, Inc.

Figure

SITE LOCATION MAP
5787 SCARLETT COURT
DUBLIN, CALIFORNIA

1



NEW DOTY
ADILLAC

U-HAUL

STORM DRAIN

Fuel Dispensers



Unidentified Property

SCOTSMAN
COMPANY

RYDER MINI STORAGE

VALLEY NISSAN/DODGE

FEDERAL GOVERNMENT PROPERTY

STORM DRAIN

STORM DRAIN

5787
SCARLETT
COURT

LUMBER 06

SCARLETT COURT

See
Figure 3

Estimated
Groundwater Direction



Clayton Environmental Consultants, Inc.

SITE AND ADJACENT PROPERTY LOCATION MAP
5787 SCARLETT COURT
DUBLIN, CALIFORNIA

Figure

2



Stockpile



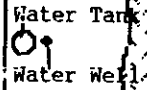
Federal Government Property

Valley Nissan/Dodge

Storm Drain



Warehouse



Water Tank

Water Well



Excavation Site

Storm Drain

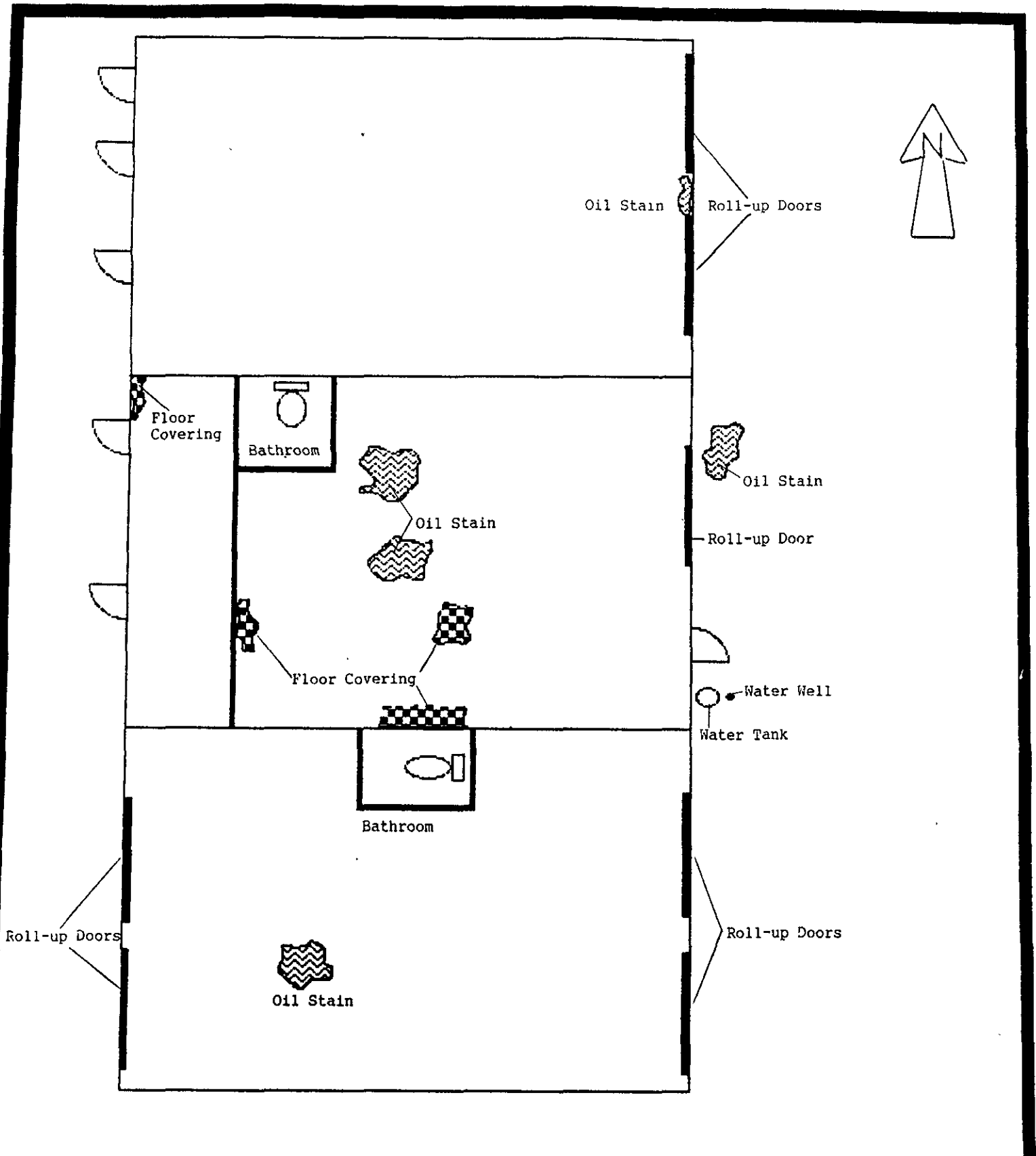
Lumber 84

Clayton Environmental Consultants, Inc.

SITE PLAN
5787 SCARLETT COURT
DUBLIN, CALIFORNIA

Figure

3



Clayton Environmental Consultants, Inc.	
WAREHOUSE PLAN VIEW 5787 SCARLETT COURT DUBLIN, CALIFORNIA	

Figure 4

APPENDIX A
DOCUMENTS PROVIDED BY MR. REGALIA

Data Chart for Tank System Tightness Test

petro tite
TANK TESTER

PLEASE PRINT

1. OWNER Priority Tank(s)
 Name: Low Duty Cad. Address: _____ Telephone: _____
 Name: _____ Address: _____ Telephone: _____

2. OPERATOR
 Name: _____ Address: _____ Telephone: _____

3. REASON FOR TEST (Explain Fully)
Amoex request

4. WHO REQUESTED TEST AND WHEN
 Name: Bill Johnson Title: Company Date: 1-5-88
 Address: Low Duty's Cad. Telephone: _____

5. WHO IS PAYING FOR THIS TEST?
Company above
 Category: Agency or Firm Person Accounting: _____ Title: _____ Telephone: _____
 Billing Address: _____ City: _____ State: _____ Zip: _____
 Attention of: _____ Other Designation: _____

Tank(s) Involved	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Aluminum
#1 N-5	10,000	Gasco	unlead	12-20	Stl.
#2 N-5	7500	Gasco	Reg. lead	17-20	Stl.

7. INSTALLATION DATA
 Location: back of building Cover: concrete & asphalt Fill: 4" Vent: 2" Sump: — Pump: suction
 North-south property: _____ Concrete, Block Top: _____ Soil, Thirds max. Deep: _____ Soil, Shallow: _____
 Base of vehicle, etc.: _____ Earth, etc.: _____ Soil, Shallow: _____ Soil, Shallow: _____
 Depth to the water table: 14' Is the water over the tank? Yes No

8. UNDERGROUND WATER
 Depth to the water table: 14' Is the water over the tank? Yes No

9. FILL-UP ARRANGEMENTS
 Tanks to be filled: _____ by _____ Date: _____ Arranged by: _____
 Tanks product to "top off" and run TST. How and who to provide? Consider NO Lead.
 Terminal or other contact for name or company: _____ Company: _____ Name: _____ Telephone: _____

10. CONTRACTOR, MECHANICS, any other contractor involved
Results are based on condition of Tank at time of date of Test and actual size of Tank

11. OTHER INFORMATION OR REMARKS
The criteria established of 2.050 gals/hr. is a mathematical calculation based on actual liquid volume change and Temp. change, and is not intended as a permission of a leak.
 Additional information on any items above. Official or others to be advised when testing is in progress or completed. Visitors or observers present during test etc.

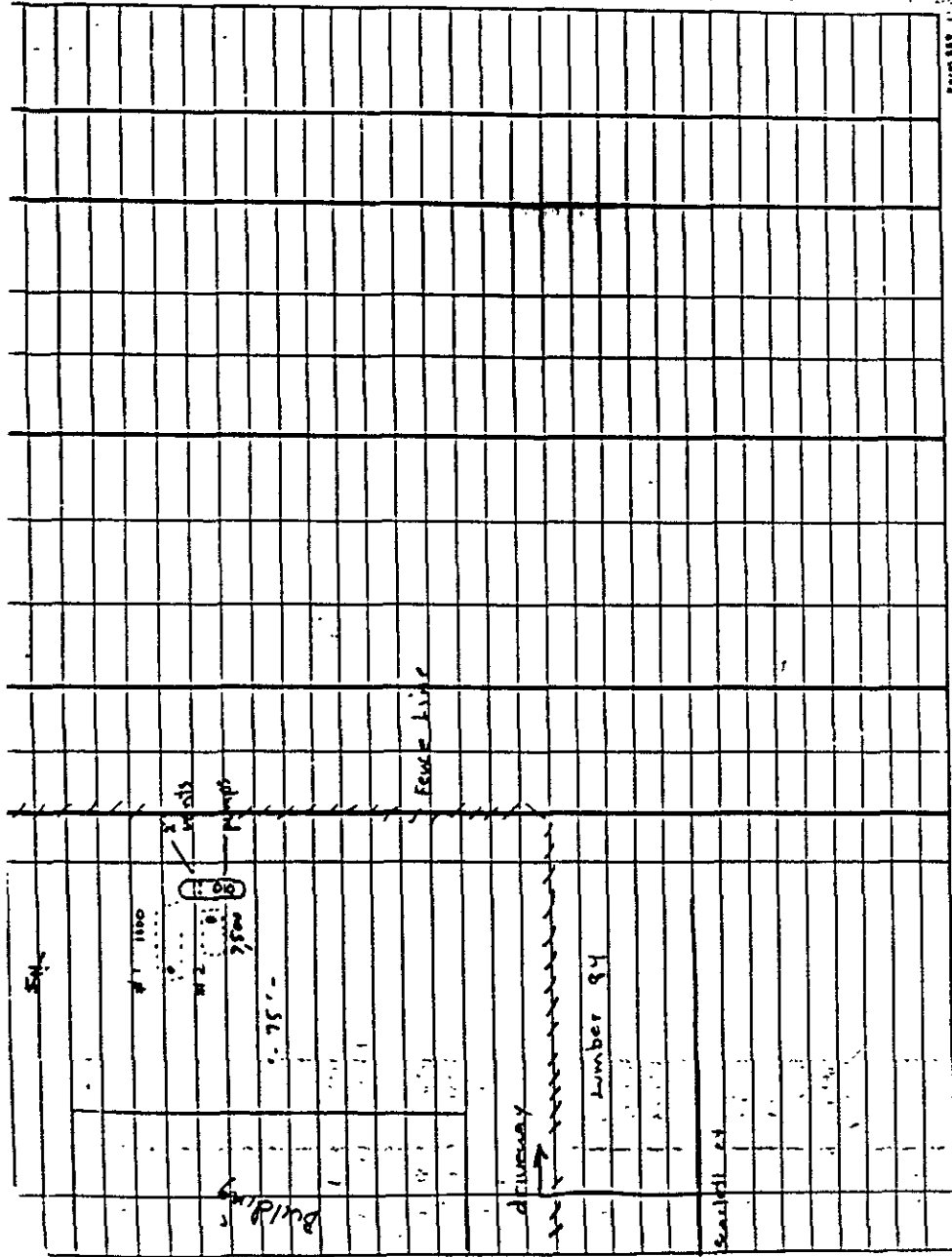
Tank Identification	Tight	Leakage Indicated	Date Tested
#1 10,000	T	-.014 G.P.H. within	1-5-88
#2 7500	T	-.011 G.P.H. within	1-7-88

12. TEST RESULTS

13. CERTIFICATION
 Date: 1-9-88
 Signature: Randy Johnson Title: Johnston's Precision Tank Testing
 Address: 38256 Gateway Ave. Fremont, Ca

This is to certify that these tank systems were tested on the date(s) shown. Those designated as "Tight" must be strictly established by the National Fire Protection Association Paragraph 328.

FORM 888
REV. 8/83



Petro Title
TANK TESTER

15. TANK TO TEST
#2 West to Island
Name of Supplier Owner or Rental
Grade or Size
G.350
H.L.O.

16. CAPACITY
Nominal Capacity 7,500
By most accurate capacity chart available 7,530
Is there doubt as to True Capacity?
See Section DETERMINING TANK CAPACITY

From #17
 Station Chart
 Tank Manufacturer's Chart
 Company Engineering Data
 Charts supplied with
 Other

17. FILL UP FOR TEST
Stick Reading to W. In. Gallons Total Gallons as Reading
Stick Water Bottom before Fill-up _____ Gallons Inventory _____ 7,530

Fill up STICK BEFORE AND AFTER EACH COMPARTMENT DROP OR EACH METERED DELIVERY QUANTITY
Tank Diameter 8' Product in full tank (up to fill pipe) _____
+ 5
7,525

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK
See manual sections applicable. Check below and record procedure in log (28)
 Water in tank High water table in tank excavation Line(s) being tested with LEVEL
12760
61 0.000 9102
VAPOR RECOVERY SYSTEM
 Stage I
 Stage II

19. TANK MEASUREMENTS FOR TEST ASSEMBLY
Bottom of tank to grade" 135
Add 30" for 4" L 30
Add 24" for 3" L or air seal
Total tubing to assemble Approximate 165
20. EXTENSION HOSE SETTING
Tank top to grade" 39
Extend hose on section tube 8" or more below tank top 45
* If fill pipe extends above grade, use top of fill

21. TEMPERATURE/VOLUME FACTOR (a) TO TEST THIS TANK
Is Today Warmer? Colder? Same? Product in tank _____ Fill up Product on Truck _____ Expected Change (+ or -)
22. Thermal Sensor reading after circulation 12760 61
23. Digits per "F" in range of expected change 322
24. 7525 x 0.000 9102 = 6849255
Total quantity in full tank (18 or 17) coefficient of expansion for involved product volume change in the tank per "F"
25. 6849255 + 322 = 22321097
Volume change per "F" (24) Digits per "F" in test Range (22) Compute to 4 decimal places. This is to be noted (2)

100 TOSCA DRIVE
P.O. BOX CS-700
STURROTON, MA 02072-1581
16173 344-1400



27. LOG OF TEST PROCEDURES		28. HYDROSTATIC PRESSURE CONTROL		29. TANK MEASUREMENTS ON RECORD TO MET. CAL.			30. TEMPERATURE CORRECTION FACTOR (a)			31. NET VOLUME CHANGE EACH READING		32. ACCUMULATED CHANGE	
TIME	TESTER	Reading No.	Level to which Reduced	Before Reading	After Reading	Factor Recovered (%)	Thermal Sensor Reading	Change Higher (+) Lower (-)	Correction (+) or (-) Construction =	Temperature Difference	Volume Change (Construction (+) or (-) (24)(7) - (24)(7))	High Level record	Low Level record
		Record details of setting up and running test (fill full length of hose if needed)											
		Record measurements for test. Setup equipment make safe area											
12:15		Begin Circulation of fluid											
2:15		Begin High Test		42			12760						
3:00		1		41.8	.750	.670	-0.080	790	+30	+0.060	-0.140		
3:45		2		42.1	.670	.670	±0	814	+24	+0.048	-0.048		
4:00		3		41.6	.670	.570	-0.100	816	+22	+0.064	-0.144		
4:15		4		41.8	.570	.560	-0.010	852	+16	+0.032	-0.062		
4:30		5		41.8	.560	.530	-0.030	869	+17	+0.034	-0.064		
4:45		6		41.8	.530	.505	-0.025	884	+15	+0.030	-0.055		
5:00		7		41.7	.505	.485	-0.020	895	+11	+0.022	-0.044		
5:15		8		41.7	.485	.470	-0.015	907	+12	+0.024	-0.039		
		Begin Low Test		12									
5:30		1		12.2	.760	.810	+0.050	922	+15	+0.030	+0.010		
5:45		2		12.2	.810	.835	+0.025	936	+14	+0.028	+0.017		
6:00		3		12.8	.835	.885	+0.050	954	+18	+0.036	-0.006	-0.006	
6:15		4		12.5	.885	.900	+0.015	964	+10	+0.020	-0.005	-0.011	
6:30		5		12.4	.900	.910	+0.010	976	+12	+0.024	-0.014	-0.024	
6:45		6		12.4	.910	.920	+0.010	985	+9	+0.018	-0.008	-0.022	
		end test clean-up Take down											
		(2033 G.P.H.) within Total ± 0.050											

Petro Tite
TANK TESTER

15. TANK TO TEST
31.250 *Swan Island*
Gaso.
H2O

18. CAPACITY
Nominal Capacity 10,000
By most accurate capacity quart available 9,994
Is there doubt as to True Capacity?
See Section DETERMINING TANK CAPACITY

From
 Station Chart
 Tank Manufacturer's Chart
 Company Engineering Data
 Charts supplied with Petro Tite
 Other

17. FILL-UP FOR TEST
Stick Water Bottom before Fill-up _____ Gallons
Inventory _____
Stick Readings to 14 in _____ Gallons
Total Gallons on Reading 9,994
Fill up STICK BEFORE AND AFTER EACH COMPARTMENT DROP OR EACH METERED DELIVERY QUANTITY
Stick Readings to 14 in _____ Gallons
Inventory _____
Total Gallons on Reading 9,995

Tank Diameter 10 1/2" Product in full tank (up to 18 pipe)
19. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK 12768 610
See manual sections applicable. Check below and record procedure in log (26).
 Water in tank High water table in tank excavation Line(s) being tested with LVLTL
VAPOR RECOVERY SYSTEM
 Stage I
 Stage II

19. TANK MEASUREMENTS FOR TEST ASSEMBLY
Bottom of tank to grade 142
Add 30" for 4" L 30
Add 24" for 3" L or other seal 182
Total tubing to assemble Approximate _____
20. EXTENSION HOSE SETTING
Tank top to grade _____
Extend hose on suction tube 6" or more below tank top _____
* If FR pipe extends above grade use top of FR.

21. TEMPERATURE/VOLUME FACTOR (a) TO TEST THIS TANK
Is Today Warmer? Colder? Product in tank _____ Fill up Product on Truck _____ Special Change (+ or -)
22. Thermal Sensor reading after circulation 12768 61
23. Digits per "F in range of expected change 724
24. 9,995 x 0.0007102 = 9.097449 gallons
Total quantity in full tank (18 or 17) Coefficient of expansion for involved product Volume change in this tank per "F
25. 9.097449 + 322 = 0.0282594 TNo in test factor (a)
Volume change per "F (24) Digits per "F in test Range (23) Volume change per digit. Complete to 4 decimal places.

100 TOSCA DRIVE
P.O. BOX CS-700
STONINGTON, MA 07072-1581
(617) 344-1400



27. TIME (H:M)	28. Record details of setting up and running test (Use full length of line if needed.)	29. Reading No.	30. HYDROSTATIC PRESSURE CONTROL		31. TANK MEASUREMENTS (AS RECORD IN 18 GAL)			34. TEMPERATURE COMPENSATION PER FACTOR (a)			38. SET VOLUME CHANGE EACH READING	39. ACCUMULATED CHANGE
			Storage Level in Inches	Level in which Returned	Before Reading	After Reading	Product Rejected (-)	Product Recovered (+)	Thermal Sensor Reading	36. Change Higher or Lower - (+)		
	Record measurements											
12:45	Set-up Tester Tap off Tester											
12:45	Start Circulation											.0028
13:00	Begin High Test			42								
15	" " " "	1	41.7		.900	.875	-.025	785	+17	+.047	-.072	
30	" " " "	2	41.6		.875	.850	-.025	773	+8	+.022	-.047	
45	" " " "	3	41.6		.850	.820	-.030	802	+9	+.025	-.055	
14:00	" " " "	4	41.6		.820	.795	-.025	808	+6	+.016	-.042	
15	" " " "	5	41.7		.775	.770	-.005	819	+11	+.030	-.065	
30	" " " "	6	41.7		.770	.750	-.020	829	+10	+.028	-.048	
45	" " " "	7	41.7		.750	.730	-.020	835	+6	+.016	-.036	
15:00	" " " "	8	41.8		.730	.715	-.015	842	+7	+.019	-.034	
15	" " " "	9	41.8		.715	.705	-.010	850	+8	+.022	-.032	
30	Begin Low Test	10	41.9		.705	.695	-.010	855	+5	+.014	-.024	
				12								
15:45	" " " "	1	13.0		.810	.840	+.030	862	+7	+.019	+.011	
16:00	" " " "	2	12.8		.840	.865	+.025	870	+8	+.022	+.003	+.003
15	" " " "	3	12.6		.865	.885	+.020	880	+10	+.028	-.008	+.005
30	" " " "	4	12.4		.885	.900	+.015	888	+8	+.022	-.007	+.012
45	End Test	5	12.3		.900	.910	+.010	897	+9	+.025	-.012	+.024
	Take down											(.024 G.A.H.) within Tol

atlas hydraulic corporation

November 10, 1988

Mr. Lew Doty
Lew Doty Cadillac
6301 Scarlett Court
Dublin, CA 94568

RE: Underground Fuel Storage Tank
6301 Scarlett Court
Dublin, CA

Dear Lew:

Atlas did a precision tank test on the 3000 gallon underground unleaded gasoline storage tank at subject location on November 1, 1988.

Attached are six (6) copies of the test results which state there is no leak in the tank.

Louis A. Richardson, consulting Engineer Geologist, is the consultant on the project. His qualifications have been sent to interested parties, including the bank and the attorneys, to my knowledge.

Breifly, Mr. Richardson is going to do a site assessment at the tank location, which will consist of drilling three holes around the area of the tank at locations designated by him. Soil samples will be taken in each hole. One of the holes, designated by Mr. Richardson will be used as a monitor well and the other two holes will be filled with concrete slurry or bentonite.

Presently, Mr. Richardson is in the process of getting permits to drill the test holes and it is our best estimate the drilling will start the latter part of the week of November 14, or early in the week of November 21. The exact date will depend on when the permits are issued.

The soil samples will be on a 24 hour turnaround to expedite the completion of the project.

Atlas will follow closely the progress of the job.

Sincerely,


J. P. Givens

JPG:aa

28971 Hopkins Street • P.O. Box 56567 • Hayward, California 94545 • 415-786-3393

PROGRESS REPORT

6301 SCARLETT COURT, DUBLIN, CA

The precision test performed on the 3000 gallon gasoline tank at 6301 Scarlett Court revealed that there was no underground leak.

Louis Richardson has engaged a driller to drill three borings the week of November 28, 1988. The borings will be tested every 5 feet and one of the borings will be used as a permanent monitor well.

This will be considered a site assessment of that property.

J. P. Givens

PROGRESS REPORT

REMOVAL OF 2 - 12,000 GALLON UNDERGROUND STORAGE TANKS

5787 SCARLETT COURT, DUBLIN, CA

Atlas removed the 2 - 12,000 gallon steel tanks on October 28, 1988 and loaded them on a truck/trucks operated by H & H Ship Service, 220 China Basin, San Francisco, CA. for transport and disposal at its TSD Facility, at the same address. The tanks were rendered inert by placing 30# of dry ice in the tanks per 1000 gallons of capacity. Tom Peacock of the Alameda County Health Services Agency and Louis Richardson Consulting Engineering Geologist for the project witnessed the removal of the tanks.

A total of 4 soil samples were taken. One each sample was taken from the dirt underneath each end of the tank. Two water samples were taken. The water samples were taken from the separate holes created by removal of the tank as dirt remained between the two tanks after the tanks were removed.

The results of the soils samples and the water samples are attached in five copies for distribution to others whom may have some need for the soil samples. Soils samples numbers 1, 3, 4, and 6 and water samples 2 and 5 were taken by Trace Analysis Laboratory on October 28, 1988.

On November 3, 1988, H & H Ship Service vacuumed approximately 5000 gallons of contaminated water out of the excavation. The water was transported to H & H's TSD site.

Also, on November 3, 1988, and November 4, 1988, Atlas removed an additional 40 yards of contaminated material from the bottom of the excavation, used approximately 50 tons of sand for berms

around the contaminated soil and spread out and aerated approximately 200 yards of contaminated soil.

On November 7, 1988, we again aerated the soil. Also, H & H vacuumed approximately 5000 gallons of contaminated water from the excavation. Trace Analysis Laboratory took 4 soil samples and 1 water sample. The soil samples were taken from about 3 feet inside the walls of the excavation to determine if the gasoline had migrated and contaminated more area. The results of the soil samples numbers 8, 9, 10 and 11 and water sample number 7 are attached in five copies, again for you to distribute this information to whom-ever is interested. Please note that contamination in high levels existed in the samples taken about 3 feet inside the four walls. This proved that the gasoline had migrated beyond the walls of the excavation.

On November 11, 1988, and November 14, 1988 we again aerated the contaminated dirt.

As the tests taken on November 7, 1988, proved that a relatively high degree of contamination still existed and the removal of approximately 3 feet additional excavation to the bottom of the hole would result in about 300 cubic yards of dirt to be stored and aerated. Futhermore, we have no way of knowing how much further the gasoline had migrated into the soil and additional excavation, stockpiling and aeration is not the answer because of lack of space at the site. It is our experience that the regulatory agencies realize that you cannot keep digging forever and it is on that basis that we advised them what we wanted to do to complete the first phase of the clean-up project.

We are going to continue aeration of the approximated 200 yards of contaminated dirt stockpiled at the site and use a meter to detect the parts per million (PPM) in the soil and repeat the process until such time as we believe that the contamination is less than 100 PPM. At that point, we will use the aerated material to back-fill the excavation, purchase clean peagravel and Class II aggregate to complete the filling of the hole and resurface the excavated

area.

It is expected that at some later date one of the regulatory agencies, probably Alameda County Health Care Services Agency, will require that test wells be drilled, sampled and that one or more of those test wells would be used as a permanent monitoring well. We do not know if the wells would be drilled a month from now or whenever. The various regulatory agencies have so many big cleanup projects underway they have had to establish a priority system with regard to individual projects.

J. P. Givens

atlas hydraulic corporation

November 18, 1988

Mr. Lew Doty
Lew Doty Cadillac
6301 Scarlett Ct.
Dublin, CA 94566

RE: Tank Removal Project
5787 Scarlett Ct.
Dublin, CA

Dear Lew:

Attached is a progress report and plan for future activity on the removal of the 2 - 12,000 gallon storage tanks at 5787 Scarlett Court. Also, attached is a brief report on the site assessment activity at 6301 Scarlett Court.

Sincerely,

ATLAS HYDRAULIC CORPORATION



J. P. Givens

JPG:aa

Encl.

LOUIS A. RICHARDSON
Consulting Engineering Geologist
208 Jason Way
Mountain View, California 94043

RECEIVED JAN 11 1989

(415) 967-1000

Registered Geologist • Certified Engineering Geologist • California and Oregon

January 9, 1989

Mr. Tom Peacock
Alameda County Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Suite 200
Oakland, California 94621

Re: **Backfilling of Tank Removal Excavation**
5787 Scarlett Ct. (Lew Doty Property)
Dublin, CA

Dear Mr. Peacock:

Pursuant to our telephone conversation today, enclosed please find the most recent laboratory test results of soils that have been stockpiled and aerated at the above-referenced site. Two 12,000 gallon underground gasoline tanks were removed on October 28, 1988 by Atlas Hydraulic Corporation.

At that time it was observed that soils and shallow groundwaters adjacent to, and beneath the tanks were contaminated with petroleum product. A total of approximately 10,000 gallons of contaminated water was vacuumed from the bottom of the excavation on November 3 and 7, 1988 and transported to an approved disposal site. About 200 cubic yards of contaminated soils generated from the tank excavation were spread out and aerated on paved parking areas of the subject property.

Periodic sampling by Trace Analysis Laboratory indicates that the Total Petroleum Hydrocarbon content, calculated as gasoline, of the stockpiled soil has decreased by aeration to less than **100** parts per million (ppm) from originally measured concentrations of up to 1,100 ppm. It would be appreciated if you could **advise** us if the aerated soil will now be acceptable for use as **backfill** in the excavation.

It is understood that further work will eventually be necessary to define the extent of contamination and determine appropriate remedial actions.

Mr. Tom Peacock
Alameda County Hazardous Materials Division
January 9, 1989
Page 2

Thank you for your cooperation in this matter. Please contact me as to the results of your determination. If you have any questions, please feel free to call.

Very truly yours,

Louis A. Richardson
Certified Engineering Geologist
No. EG 1085

LAR:ka
Enclosures

cc: Mr. Bill Bender,
Atlas Hydraulic Corp.

LOUIS A. RICHARDSON
Consulting Engineering Geologist

ALAMEDA COUNTY
HEALTH CARE SERVICES
DAVID J. KEARS, AGENCY

~~CARL KXKXKXKX~~, Agency Director



Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Certified mailer #: P 833 981 187

~~AGENCY HEALTH CARE SERVICES~~
~~X99 XKX X~~
~~XXXXXXXXXXXXXXXXXXXX~~
(415) 271-4320

March 3, 1989

Mr. Lew Doty
Lew Doty Cadillac
6301 Scarlett Ct.
Dublin, CA 94568

Re: Unauthorized release from underground storage tanks, 5787
Scarlett Ct., Dublin

Dear Mr. Doty:

The purpose of this letter is to summarize what our office knows regarding contamination at the site referenced above and to outline requirements for site mitigation. Our office was notified of a soil contamination problem on September 28, 1988. Two 12,000-gallon underground tanks containing gasoline were removed on October 28, at which time floating product was observed in the excavation pit. On two subsequent occasions, water was pumped from the pit and taken to an approved disposal site. Currently, water is standing in the hole, which remains open, and excavation soil remains stockpiled next to the hole.

An unauthorized release report should have been received within 5 days of discovery of the leak, and therefore should be submitted to this office immediately; all sample analytical reports and chain of custody forms should also be sent to this office. In addition, you must initiate further investigation and/or cleanup activities at this site, as described below.

First, an **assessment** should be conducted to determine the extent of soil and **groundwater** contamination that has resulted from the leaking tank(s). **The assessment** should be designed to provide all of the information in the format shown at the end of this letter. This format is based on the Regional Water Quality Control Board (RWQCB's) guidelines. You should be prepared to install one monitoring well, if you can verify the direction of groundwater flow in the immediate vicinity of the site, and three wells or piezometers, if you cannot.

Until cleanup is complete, you will need to submit reports to this office and to the RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). These reports should include information pertaining to further investigative

Mr. Lew Doty
March 3, 1989
Page 2 of 6

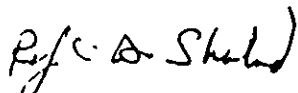
results; the methods and costs of cleanup actions implemented to date; and the method and location of disposal of any contaminated material.

Your work plan should be submitted to this office within 20 days of the date of this letter. A report describing the results of the site assessment should be submitted within 60 days of the date of this letter. Copies of the proposal and report should also be sent to the RWQCB (attention: Lisa McCann). You may implement remedial actions before approval of the work plan, but final concurrence by this office will depend on the extent to which the work done meets the requirements described in this letter.

Your consultant, Lou Richardson, indicated over the phone that levels of gasoline in stockpiled soils have decreased from about 1,100 ppm to below 100 ppm as a result of aeration. He also said that groundwater in the pit has contaminant levels of about 88 ppb. We can permit the replacement of stockpiled soil in the pit, since lab results show that TPH levels have indeed decreased below 100 ppm; however, unless you can show that unexcavated soil in the pit is clean (<100 ppm), further excavation may be required. With regard to disposal of groundwater standing in the pit, we cannot permit it to be pumped into the storm drain.

You will need to submit an additional deposit of \$600 to cover costs that the Division of Hazardous Materials incurs during remediation oversight. Should you have any questions about this letter or about remediation requirements established by the RWQCB, please contact Gil Wistar, Hazardous Materials Specialist, at 271-4320.

Sincerely,



Rafat A. Shahid
Chief, Hazardous Materials Division

RAS:GW:gw

cc: Lou Richardson, Consulting Engineering Geologist
Howard Hatayama, DOHS
Lisa McCann, San Francisco Bay RWQCB
Gil Jensen, District Attorney, Alameda County Consumer
and Environmental Protection Agency


LOUIS A. RICHARDSON
Consulting Engineering Geologist
202 Jason Way
Mountain View, California 94043

(415) 967-1000

Registered Geologist • Certified Engineering Geologist • California and Oregon

March 8, 1989

Mr. Tom DeHollander, Industrial Waste Inspector
Dublin San Ramon Services District
7051 Dublin Boulevard
Dublin, California 94568

Re: Wastewater Discharge Permit Application
5787 Scarlett Ct. (Lew Doty Property)
Dublin, CA

Dear Mr. DeHollander:

Pursuant to our recent telephone conversation, enclosed please find the completed application to discharge groundwater at the above-referenced site. Two 12,000 gallon underground gasoline tanks were removed from the site on October 28, 1988 and it is now necessary to backfill the excavation which has partially filled with groundwater.

To achieve proper compaction in the backfill, it will be necessary to remove most of the water now present in the excavation, estimated to not exceed 10,000 gallons. It is presently proposed to pump the water to the sanitary sewer serving the vacant building at the site (see enclosed sketch). Attached to the permit application are laboratory test results for hydrocarbons from the most recent water samples from the excavation.

As we discussed, this will be a one-time only discharge into the system. Since the open excavation poses somewhat of a hazard from a liability standpoint, we would like to backfill it as soon as possible. Any efforts you could make in expediting the permit approval process would be greatly appreciated.

Thank you for your cooperation in this matter. If you have any questions, please feel free to call.

Very truly yours,



Louis A. Richardson
Certified Engineering Geologist
No. EG 1085

Enclosures

cc: Mr. Jim Givens, Atlas Hydraulic Corp.

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.		
REPORT DATE 03/16/89		CASE #		SIGNED _____ DATE _____		
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Louis A. Richardson		PHONE (415) 967-1000		SIGNATURE 	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME Consulting Engineering Geologist			
	ADDRESS 202 Jason Way Mountain View, CA 94043					
RESPONSIBLE PARTY	NAME Lew Doty Cadillac <input type="checkbox"/> UNKNOWN		CONTACT PERSON Lew Doty		PHONE (415) 828-3689	
	ADDRESS 6301 Scarlett Court Dublin, CA 94568					
SITE LOCATION	FACILITY NAME (IF APPLICABLE)		OPERATOR Lew Doty Cadillac		PHONE (415) 828-3689	
	ADDRESS 5787 Scarlett Court Dublin, CA 94568					
	CROSS STREET Dougherty Road		TYPE OF AREA <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> RURAL <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> OTHER		TYPE OF BUSINESS <input type="checkbox"/> RETAIL FUEL STATION <input type="checkbox"/> FARM <input checked="" type="checkbox"/> OTHER Warehouse	
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME Alameda Co. Dept. of Environ. Health Hazardous Materials Division		CONTACT PERSON Gil Wistar		PHONE (415) 271-4320	
	REGIONAL BOARD San Francisco Bay RWQCB		CONTACT PERSON Lisa McCann		PHONE (415) 464-0559	
SUBSTANCES INVOLVED	(1)		NAME Gasoline		QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN	
	(2)				<input type="checkbox"/> UNKNOWN	
DISCOVERY/ABATEMENT	DATE DISCOVERED 06/23/88		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input checked="" type="checkbox"/> OTHER Subsurface site assessment			
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input checked="" type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> OTHER			
SOURCE/CAUSE	SOURCE OF DISCHARGE <input checked="" type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		TANKS ONLY: CAPACITY 2 x 12,000 GAL. AGE _____ YRS <input checked="" type="checkbox"/> UNKNOWN		MATERIAL <input type="checkbox"/> FIBERGLASS <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> OTHER	
	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input checked="" type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER					
CASE TYPE	CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input type="checkbox"/> CLEANUP IN PROGRESS <input type="checkbox"/> SIGNED OFF (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> NO FUNDS AVAILABLE TO PROCEED <input type="checkbox"/> EVALUATING CLEANUP ALTERNATIVES					
REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CO) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input checked="" type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (BT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input checked="" type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)					
COMMENTS	Two 12,000 gallon tanks were removed in Oct., 1988. The tanks were not in use when contamination was discovered adjacent to the tanks by a consultant performing a real estate site assessment. The property is not presently in use.					

DUBLIN SAN RAMON SERVICES DISTRICT

General Offices: 7051 Dublin Blvd • Dublin, California 94568 • (415) 828-0515 • Fax: 829-1180

945-6850

March 23, 1989

Mr. Louis A. Richardson
Consulting Engineering Geologist
202 Jason Way
Mountain View, CA 94043

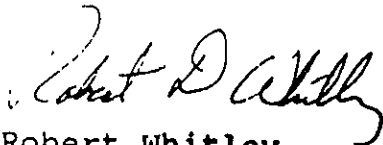
Re: Wastewater Discharge Permit for Lew Doty's Scarlett Ct.
property in Dublin

Dear Mr. Richardson:

Enclosed you will find two copies of Wastewater Discharge Permit #5541-003. Please review these permits with Mr. Doty. If everything is in order, have him sign both copies of the permit. Keep one copy in your files. Return one signed copy of the permit to Dublin San Ramon Services District before start-up of pumping operation. Be aware that the permit was drafted using a pumping rate of 10 gallons per minute and a volume of 10,000 gallons. Changes in pumping rate or volume pumped will affect the Demand and Loading portions of the billing.

If you have any questions regarding the permit, billing, or other conditions or limitations of this permit, please contact the Industrial Waste Inspector, Tom DeHollander, at 846-4565.

Yours very truly,



Robert Whitley
District Engineer

cc: Bob Swanson, Wastewater Operations Manager
Tom DeHollander, Industrial Waste Inspector



DUBLIN SAN RAMON SERVICES DISTRICT
PRETREATMENT PROGRAM
WASTEWATER DISCHARGE PERMIT

5541-003

IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THE:

X D.S.R.S.D. CODE (CHAPTER 7 ARTICLE 3)

 CITY OF PLEASANTON CODE (CHAPTER 8 ARTICLES 5 & 7)

AND ALSO WITH ANY APPLICABLE PROVISION OF FEDERAL OR STATE
LAWS OR REGULATIONS;

PERMISSION IS HEREBY GRANTED TO:

Lew Doty Cadillac property

Name of Company

6301 Scarlett Court, Dublin, California 94568

Mailing Address

CLASSIFIED BY S.I.C. NO. 5541 (Gasoline Service Stations)

FOR THE CONTRIBUTION OF groundwater INTO

THE D.S.R.S.D. SEWER LINES AT:

5787 Scarlett Court, Dublin, California

Address of Discharger

EFFECTIVE: 15 March, 1989

EXPIRES ON: 30 April, 1989

Lew Doty

PRINT NAME OF PERMITTEE

SIGNATURE OF PERMITTEE

DISTRICT ENGINEER

atlas hydraulic corporation

March 31, 1989

Lew Doty Cadillac
6301 Scarlett Court
Dublin, CA 94566

RE: 5787 Scarlett Court, Dublin, CA
Atlas Job #1091

Gentlemen:

This will confirm the salient points of our 3/30/89 meeting where the following decisions were made and agreed by Mr. Doty, Lew Richardson and Bill Bender.

1. The excavation will be dewatered by Atlas discharging the liquid into the sanitary sewer system. This work will be done in accordance with the waste water discharge permit issued by the Dublin-San Ramon Service District. The pumping rate will be 10 gallons per minute and will be observed by one of Atlas' field people.
2. Since the stock piled material is below 100 ppm, the excavation will be backfilled up to the ground water level which is approx. at -5 feet. The material will be placed and compacted to 90% relative density.
3. Atlas will continue with the excavation laterally but only to a depth to the ground water level at approx. -5 feet. This excavation will be observed by Lew Richardson. The contamination levels will be measured by Lew Richardson with Atlas' PID.
4. When limits of approx. 100 ppm have been reached, or when excavation must stop because of proximity of property lines and/or buildings, Trace Analysis will do the final sampling and testing of the sidewall material of the excavation.
5. Lew Richardson will prepare a work plan and will submit it to the regulators. He will also install the monitoring well

Lew Doty Cadillac
March 31, 1989
Page 2

and will remain the Certified Engineering Geologist of
Record for any future remediation work that may be required.

Yours very truly,

ATLAS HYDRAULIC CORPORATION



William H. Bender, C.E., S.E.

WHB:be

cc: Lew Richardson

DUBLIN SAN RAMON SERVICES DISTRICT

7051 Dublin Boulevard

Dublin, California 94568

TO: MR. LOUIS A. RICHARDSON
CONSULTING ENGINEERING GEOLOGIST
202 JASON WAY
MOUNTAIN VIEW, CA 94043

INVOICE DATE
May 17, 1989

PERIOD COVERED: March 1 to April 30, 1989

INVOICE #IW051789-LDC

BILLING RECAP

DEMAND CHARGE.....	\$ 253.01
LOADING CHARGE.....	\$ 3.04
FRETREATMENT CHARGE.....	\$ 11.94
TOTAL.....	\$ 267.99
	=====

Questions regarding demand charges, loading charges, sampling charges and permits, should be directed to the Industrial Waste Department at 846-4565.

Questions regarding remittance, payments, or penalties should be directed to the Finance Department at 828-0515.

*** PLEASE NOTE ***

A 10% penalty will be assessed if bill is not paid within 30 days of invoice date. An additional 1/2% penalty per month will be assessed if not paid within 60 days after invoice date.

DUBLIN SAN RAMON SERVICES DISTRICT
INDUSTRIAL SEWER SERVICE BILLING SUPPLEMENT

DISCHARGER: LEW DOTY CADILLAC PROPERTY

PERIOD COVERED: March 1 to April 30, 1989

REGIONAL USER CHARGE

Demand Parameters	Units		Unit Cost	=	\$	Charge
Flow (M.G.D.)	0.005	X	24285.62	=	\$	121.43
BOD (lb/day)	0.2085	X	4.20	=	\$	0.88
S.S. (lb/day)	0.2085	X	2.68	=	\$	0.56
Connections	1	X	1.10	=	\$	1.10
Loading Parameters						
Flow (M.G.)	0.01	X	102.09	=	\$	1.02
BOD (1000 lb)	0.0004	X	38.78	=	\$	0.02
S.S. (1000 lb)	0.0004	X	20.79	=	\$	0.01
						125.01
TOTAL REGIONAL USER CHARGE				=	\$	125.01

LOCAL USER CHARGE

Demand Parameters	Units		Unit Cost			Charge
Flow (M.G.D.)	0.005	X	25537.27	=	\$	127.69
Connections	1	X	1.36	=	\$	1.36
Loading Parameters						
Flow (M.G.)	0.01	X	199.55	=	\$	2.00
						131.04
TOTAL LOCAL USER CHARGE				=	\$	131.04

TOTAL CHARGES FOR PERIOD

REGIONAL USER CHARGE	\$	125.01
LOCAL USER CHARGE	\$	131.04
PRETREATMENT CHARGE	\$	11.94
		267.99

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

Certified mailer #:P 833 981 433

May 26, 1989

Mr. Lew Doty
Lew Doty Cadillac
6301 Scarlett Ct.
Dublin, CA 94568

NOTICE OF VIOLATION

Dear Mr. Doty:

In a letter dated March 3, 1989, the Alameda County Department of Environmental Health, Hazardous Materials Division, requested that you perform certain actions to characterize and clean up the contamination resulting from a leaking underground storage tank at 5787 Scarlett Ct. in Dublin. In that letter, we requested that you submit a work plan to this office by March 23, 1989, and a report on the extent of contamination by May 2. So far, we have received nothing to this effect from you or your consultant. Therefore, we are making a second request for a work plan, as well as a deposit of \$600, to be sent to this office by June 16, 1989. The work plan should follow the guidelines included with the March 3 letter from this office.

According to Sec. 25298 of the California Health and Safety Code, underground storage tank closure is incomplete until the responsible party characterizes and remediates the contamination resulting from product discharge. Therefore, Lew Doty Cadillac is in violation of this section of the Code, for which Sec. 25299 specifies civil penalties of up to \$5,000, for each day of violation. In addition, failure to furnish technical reports regarding documented groundwater contamination violates Section 13268 of the California Water Code, for which the Regional Water Quality Control Board can impose civil liabilities of up to \$1,000 for each day in which the violation occurs.

For any work at the site to date that has resulted in the disposal of hazardous liquid or waste, manifests should be sent to this office. All sample analytical reports and chain of custody forms should also be sent to this office.

Mr. Lew Doty
May 26, 1989
Page 2 of 2

Should you have any questions about this letter or about remediation requirements established by the RWQCB, please contact Gil Wistar, Hazardous Materials Specialist, at 271-4320.

Sincerely,

Rafat A. Shahid
Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:GW:gw

cc: Lou Richardson, Consulting Engineering Geologist
Doug Krause, DOHS
Dyan Whyte, San Francisco Bay RWQCB
Gil Jensen, District Attorney, Alameda County Consumer
and Environmental Protection Agency



LOUIS A. RICHARDSON
Consulting Engineering Geologist
202 Jason Way
Mountain View, California 94043

(415) 967-1000

Registered Geologist • Certified Engineering Geologist • California and Oregon

June 12, 1989

Proj. No. 336.48

Lew Doty Cadillac
6301 Scarlett Court
Dublin, California 94568

Attention: Mr. Lew Doty

Re: Progress Report and Work Plan for
Site of Unauthorized Release from
Underground Fuel Tanks at
5787 Scarlett Court
Dublin, California

Gentlemen:

INTRODUCTION

Pursuant to your request, this report presents a summary of work performed to date at the above-referenced site of two underground fuel tanks on property owned by your firm. Included is a description of the site and hydrogeologic setting, an outline of the known site history and a proposed plan for characterizing the extent of soil and groundwater contamination. Also included are results of laboratory tests performed to date on soil and water at the site, and various correspondence, permit and related material regarding work that has been performed at the site. This report is intended to provide information requested of you by the Alameda County Health Care Services Agency, Hazardous Materials Division.

SITE CONDITIONS

Site Description

As shown on the Site Location Map, Drawing No. 1 in the Appendix to this report, the subject site is located about 1800 feet east of the intersection of Interstate Highway 580 and Dougherty Road on the east edge of the City of Dublin, California. The property is a "flag" lot at 1587 Scarlett Court, north of the 84 Lumber Co. building, with access from Scarlett Court by a driveway on the west side of the lumber company.

The only structure on the site is a one-story, metal warehouse building that is located at the end of the driveway, near the center of the property. The site of the subject fuel tanks is in a paved area west of the metal building and the location of the adjacent dispenser island is near the eastern property line. The described site features are shown on the Site Plan, Drawing No. 2.

The flat-lying, triangular-shaped parcel is bounded on the east side by an unlined drainage ditch adjacent to an old Southern Pacific Railroad grade, which separates the site from vacant land at the inactive Camp Parks military facility. The west side of the property is bounded by a concrete box channel that carries surface runoff from surrounding areas. The 84 Lumber Company property is on the south side of the parcel. With the exception of narrow planter areas for landscaping, the property is entirely paved with asphalt.

A water well exists immediately adjacent to the east side of the existing building. The well is labeled 3S/1E-6G5 and is listed with the Alameda County Flood Control and Water Management District. Communications with that district indicate that the well was installed on June 30, 1969 and has a total depth of 200 feet. Perforations are at 103 to 106 feet and 173 to 178 feet. Depth and type of seal is not known. The last recorded depth to water was 17.8 feet, on March 28, 1988. The declared use at the time of installation was landscape irrigation.

Topographic Setting

The site is situated on a broad, flat alluvial plain in the east portion of the San Ramon Valley. Regionally, the ground surface slopes gently to the southwest, toward the central portion of the valley from the flanking hills about one mile northeast.

Geologic Conditions

The site location is at the southern end of the San Ramon Valley near its confluence with the Livermore Valley, a broad, east-west trending structural basin. These intermontane valleys within the Diablo Range are filled with considerable thicknesses of alluvial deposits of recent age. The sediments generally consist of gravel, sand, silt and clay that were laid down in lakes, swamps and streams emerging from the surrounding highlands. Basement rock formations that are exposed on the flanking hills and mountains are mantled in the central portion of the valley by a several hundred feet of the alluvial materials.

Soil Survey Maps by the U.S. Department of Agriculture indicate that surficial soil in the site area is known as Clear Lake Clay, which has slow permeability and high available water holding capacity.

Hydrogeologic Conditions

The Dublin area is within the San Ramon subbasin of the Livermore Valley groundwater basin, which has two principal water-bearing formations. Some water pumped from wells in the basin is derived from the Livermore gravel formation, but most comes from a more permeable, overlying alluvial formation. The San Ramon groundwater subbasin, where the site is located, is completely overlain by a thick, relatively impermeable clay barrier, or aquiclude, restricting vertical movement of surface water and shallow groundwater into the underlying, water-bearing aquifers.

Shallow groundwater in the area is sometimes tapped by domestic wells, but is not generally utilized for municipal purposes. The shallow groundwater in the site vicinity is estimated to flow to the southwest, following local topographic trends. Groundwater flow in the underlying alluvial formation is also to the southwest.

BACKGROUND

Site History

Based on information that has been provided regarding the site history, the subject property was acquired by Lew Doty Cadillac about three years ago. The previous tenant on the land was the Demar Plastering Company. The two 12,000 gallon, steel underground gasoline tanks were utilized by that company for fueling vehicles, but the tanks and the property have not been used since transfer of ownership to Lew Doty Cadillac.

Release Discovery

A subsurface investigation was performed at the site in June, 1988 by Certified Engineering and Testing Co., who were retained by the Law Firm of Broad, Schultz, Larson and Wineberg for the purposes of a site assessment. That investigation detected the presence of petroleum hydrocarbons and purgeable aromatic compounds in the soil and groundwater in the immediate vicinity of the gasoline tanks. The physical extent of the contamination was not determined at that time.

Immediate Source Removal (Tanks and Soils)

The two underground storage tanks were removed from the site on October 28, 1988 by Atlas Hydraulic Corporation. At that time it was observed that the tanks had been holed by corrosion and that soils and shallow groundwaters adjacent to, and beneath the tanks were contaminated with petroleum product. The total quantity of lost product is not known. A total of approximately 10,000 gallons of contaminated water was vacuumed from the bottom of the excavation on November 3 and 7, 1988 and transported to an approved disposal site. About 200 cubic yards of contaminated soils generated from the tank excavation were

spread out and aerated on paved parking areas of the subject property. That work is summarized in a letter from Atlas Hydraulic Corporation to Mr. Lew Doty, dated November 18, 1989, a copy of which is included in the appendix to this report.

Sampling by Trace Analysis Laboratory, Inc., indicated that, by mid-December 1989, the total petroleum hydrocarbon content, calculated as gasoline, of the stockpiled soil was decreased by aeration to less than 100 parts per million (ppm) from originally measured concentrations of up to 1,100 ppm. Permission was requested, by letter to the County Department of Environmental Health on January 9, 1989, to use the aerated soil as backfill in the excavation. Authorization was received from the Alameda County Hazardous Materials officer, in a letter dated March 3, 1989, to use the aerated soil for that purpose. As requested by the County at that time, an unauthorized release form was obtained and submitted on March 16, 1989.

Groundwater had infiltrated the initial excavation, after vacuum removal of the original contaminated water, to a standing level of about 7.5 feet. It was necessary to again dewater the excavation, which was up to 14 feet deep, prior to backfilling. Chemical analyses performed on that groundwater indicated only trace amounts of contamination and it was discharged into the sanitary sewer after a permit was received from the Dublin-San Ramon Sanitary Services District. Backfilling of the original excavation was completed on about April 10, 1989.

During the period of April 15 through April 20, 1989, Atlas Hydraulic Corporation enlarged the perimeter of the excavation by excavating an additional 300 cubic yards of contaminated soils to the depth of groundwater. Because of space constraints on site for aerating soil, the contractor indicates that this is the maximum amount that can be excavated at one time. Those soils were spread on the paved areas of the site for treatment by aeration and were sampled by Trace Analysis Laboratory on May 31, 1989 to determine if hydrocarbon levels are now below 100 ppm. We are presently awaiting the test results of those samples. If the levels are acceptable County Agency, the soils will be used as backfill in the excavation, as before.

Tests of the present excavation sidewalls show existing contamination levels to be about 960 ppm on the eastern side, which is constrained from further excavation by a high pressure water line in an easement along the east property line. Contamination levels elsewhere on the excavation sidewalls are between 59 and 210 ppm, indicating that some further excavation may be necessary if it is required to remove all assessable soils containing above 100 ppm total hydrocarbons.

WORK PLAN

Immediate Source Removal

To date, the objective of work performed at this site has been to remove the immediate source of contamination (i.e. tanks and lines) and any accessible, contaminated soils that may have a potential for leaching the petroleum product into ground or surface water. As the soils have been excavated, they have been spread on site and aerated to very low levels of contamination (<100 ppm as specified by Alameda County), then replaced in the excavation. Due to space constraints on the site for aeration, this work has been done in phases.

Sampling of the walls of the latest extent of the excavated pit indicates that contamination levels are falling as the excavated area expands, but some areas are still above 100 ppm. The present aerated stockpile has been sampled, but test results are not yet available. When the stockpile is determined to have aerated to acceptable levels (<100 ppm), probably within the next two weeks and with authorization with the County, it will be replaced in the pit. Where feasible, it is planned to continue to remove the unexcavated soils until clean. It should be noted that the east side of the pit can not be extended further, due to a high pressure water line and the limits of the property.

Preliminary Site Assessment

When further excavation is no longer necessary or feasible, it is proposed to perform a preliminary site assessment to determine whether or not groundwater has been impacted, beginning with testing of the existing well and the installation of one monitoring well in the probable downgradient direction. The shallow groundwater gradient in the area, based on topography and observations of groundwater in the excavated pit, is estimated to be in a southwesterly direction, as shown on Drawing No. 2.

A total of three monitoring wells are usually required to verify the hydraulic gradient. If this is necessary, a decision will be made, based on the amount of contamination indicated by the first well, whether to perform a soil gas survey by the PETREX method before installing further wells. Such a survey will facilitate plume definition for locating wells efficiently.

Sampling

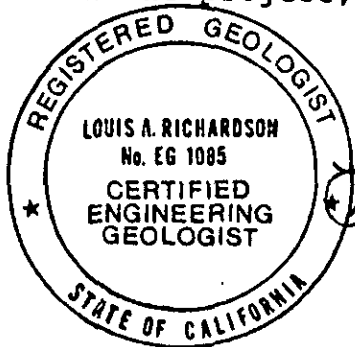
Sampling of the walls of the excavation and stockpiles, and testing for petroleum hydrocarbons, has been performed by Trace Analysis Laboratory, a State of California Certified Laboratory. The samples were collected in thin-walled, brass cylinders, the ends sealed with aluminum foil and capped with

polyethylene lids, then taped, labeled and refrigerated for delivery to the laboratory. Chain of custody forms were used throughout. This procedure will continue to be followed during any necessary soil sampling.

CLOSURE

A copy of this report should be submitted to the Alameda County Health Care Services Agency, Hazardous Materials Division. After the excavation of contaminated soil is completed, a detailed proposal outlining proposed monitoring well locations and construction methods, soil gas survey procedures, sampling methods and procedures, and subcontractors can be prepared for submission to the County.

Thank you for the opportunity to be of assistance in this matter. Please feel free to call when you require further services on the project, or if you have any questions.

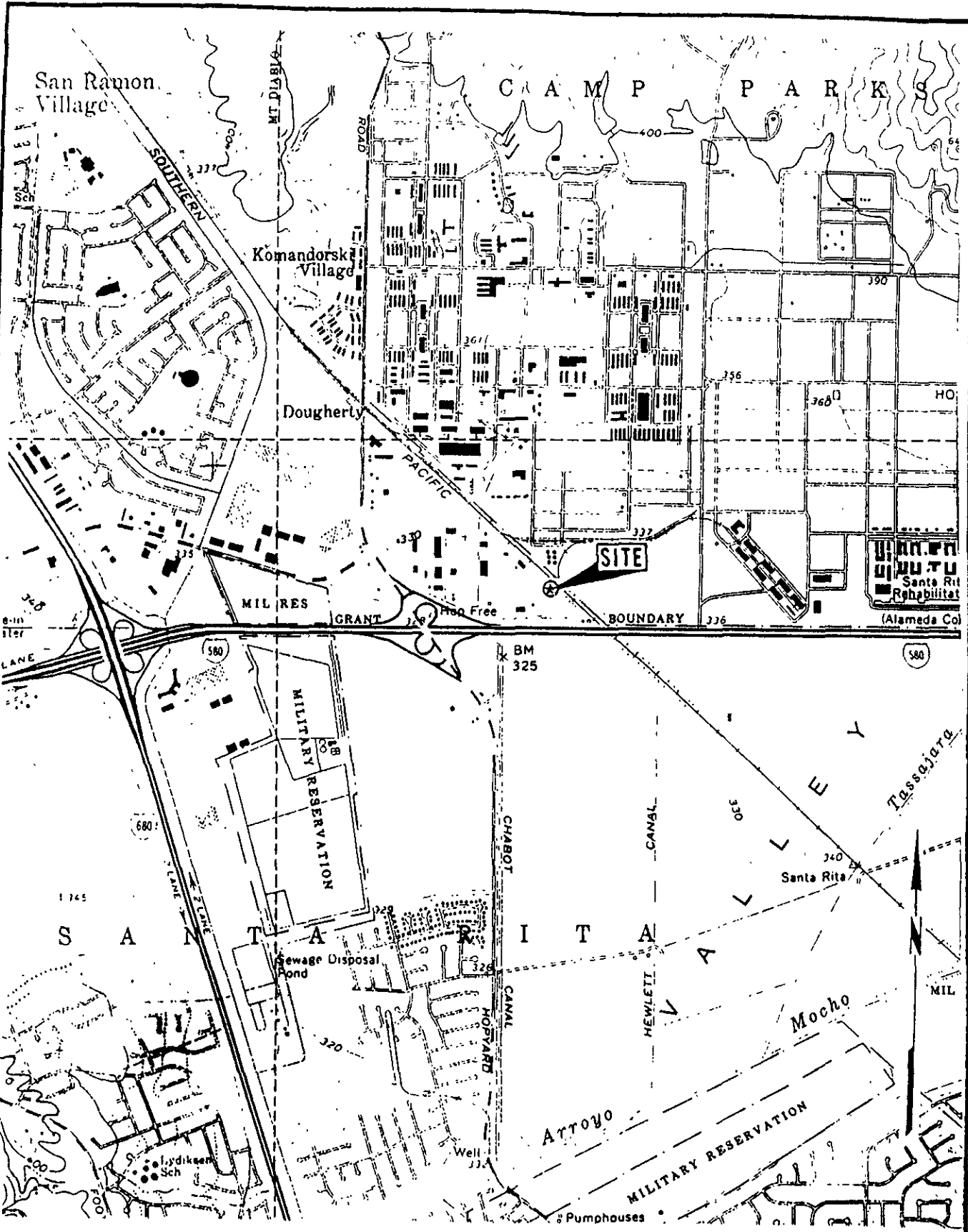


Louis A. Richardson

Certified Engineering Geologist
No. EG 1085


LAR:ka

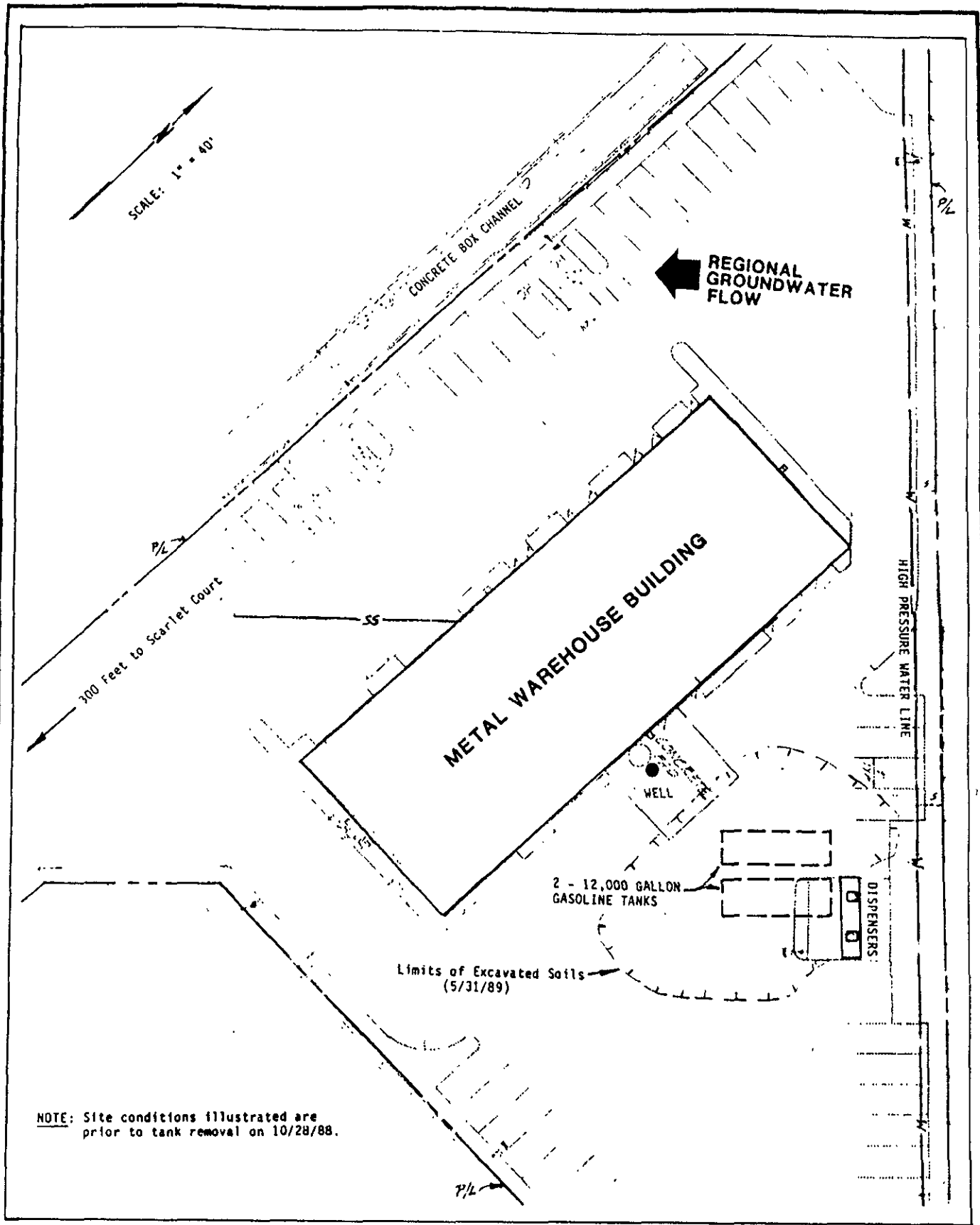
Appendix




BASE: USGS Dublin 7.5' Quadrangle

SCALE: 1" = 2000'

	5787 Scarlett Court Dublin, CA		SITE LOCATION MAP	
	LOUIS A. RICHARDSON Consulting Engineering Geologist		PROJECT NO 336.48	DATE June, 1989



	5787 Scarlett Court Dublin, CA		SITE PLAN	
	LOUIS A. RICHARDSON Consulting Engineering Geologists	PROJECT NO. 336.48	DATE June 1989	DRAWING NO. 2

atlas hydraulic corporation

November 27, 1989

Mr. Lew Doty
Lew Doty Cadillac
6301 Scarlett Court
Dublin, CA 94566

FAX #829-5714

RE: 5787 Scarlett Court

Dear Lew:

Subject to your approval Lou Richardson and I recommend the following plan to bring to a conclusion the cleanup at subject location. We must have more information as to whether the groundwater is contaminated.

1. Lou is getting prices to install a soils-gas survey system which will define the extent and concentration of contamination and give us information as to where to best locate the monitor wells.
2. Depending on the results of the soils-gas survey, we will have to dig one to three monitor wells. It will be at least a month before approval to dig the wells is received.
3. Richardson believes the gradient is low and the ground water is shallow and that little migration has occurred. The water which came into the tank hole was clean after we pumped out the contaminated water.
4. The samples taken from the drilling for the monitor well/s and the soils-gas survey will give everyone the information needed to determine the future course of action.

Soils-gas surveys are used extensively in sales or transfer of property.

Sincerely,

ATLAS HYDRAULIC CORPORATION



J. P. Givens

JPG:aa

XXXXXXXXXXXXXXXXXXXX • P.O. Box 56567 • Hayward, California 94545 • 415-786-3393

APPENDIX

- LABORATORY TEST RESULTS
- CORRESPONDENCE

SUMMARY OF LABORATORY TEST RESULTS

Initial Excavation for Tank Removal

(Date sampled, 10/28/88)

<u>Soil</u>	<u>Sample No.</u>	<u>Concentration (ppm)</u>
	# 1 (North End - west tank)	1100
	# 3 (South End - west tank)	1100
	# 4 (North End - east tank)	500
	# 6 (South End - east tank)	3400
<u>Water</u>	# 2 (Groundwater at west tank)	
	Total Petroleum - gasoline	350
	Benzene	11
	Toluene	8.3
	Xylenes	22.0
	Ethyl Benzene	7.3
	# 5 (Groundwater at east tank)	
	Total Petroleum - gasoline	180
	Benzene	27
	Toluene	4.0
	Xylenes	16.0
	Ethyl Benzene	7.2

(Date sampled, 11/07/88)

<u>Water</u>	<u>Sample No.</u>	<u>Concentration (ppm)</u>
	# 7 (Standing water in tank)	
	Total Petroleum - gasoline	32
	Benzene	5.5
	Toluene	3.1
	Xylenes	7.0
	Ethyl Benzene	0.8
<u>Soil</u>	# 8 (North End - west tank)	740
	# 9 (South End - west tank)	1500
	# 10 (North End - east tank)	610
	# 11 (South End - east tank)	2200

SUMMARY OF LABORATORY TEST RESULTS (cont'd)

Aerated Stockpile from Initial Tank Excavation

(Date sampled, 12/19/88)

Soil

<u>Sample No.</u>		<u>Concentration (ppm)</u>
# 12	Total Petroleum - gasoline (East End - east pile)	ND
# 13	(East Center - east pile)	16
# 14	(West Center - east pile)	84
# 15	(West End - east pile)	84
# 16	(North End - west pile)	ND
# 17	(South End - west pile)	ND

Groundwater that infiltrated excavation after removal of original standing water.

(Date sampled, 2/22/89)

	<u>Sample No.</u>		<u>Concentration (ppm)</u>
Water	# 18	Total Petroleum - gasoline	.0077
		Benzene	.00081
	Toluene	.00057	
	Xylenes	.00092	
	Ethyl Benzene	<.0004	
	# 19	Total Petroleum - gasoline	.016
		Benzene	.00072
		Toluene	.00056
		Xylenes	.00061
		Ethyl Benzene	<.0004

Walls of Second Phase Excavation

(Date sampled, 4/19/89)

Soil

	<u>Sample No.</u>		<u>Concentration (ppm)</u>
	# 20	Total Petroleum - gasoline	
		(Southwest Corner)	59
		(Northwest Corner)	210
		(Northeast Corner)	960
	# 23	(Southeast Corner)	210

DATE: 11/1/88
 LOG NO.: 6585
 DATE SAMPLED: 10/28/88
 DATE RECEIVED: 10/28/88
 PAGE: Two

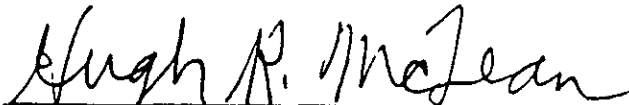
Sample Type: Soil

<u>Method and Constituent</u>	<u>Units</u>	<u>No. 6</u>	
		<u>Concentration</u>	<u>Detection Limit</u>
DHS Method:			
Total Petroleum Hydrocarbons as Gasoline	ug/kg	3,400,000	60,000
Modified EPA Method 8020:			
Benzene	ug/kg	380,000	7,000
Toluene	ug/kg	100,000	900
Xylenes	ug/kg	200,000	4,000
Ethyl Benzene	ug/kg	21,000	1,000

DATE: 11/1/88
 LOG NO.: 6585
 DATE SAMPLED: 10/28/88
 DATE RECEIVED: 10/28/88
 PAGE: Three

Sample Type: Water

<u>Method and Constituent</u>	<u>Units</u>	<u>No. 2</u>		<u>No. 5</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>	<u>Concen- tration</u>	<u>Detection Limit</u>
DHS Method:					
Total Petroleum Hydro- carbons as Gasoline	ug/l	350,000	10,000	180,000	20,000
Modified EPA Method 8020:					
Benzene	ug/l	11,000	700	27,000	1,000
Toluene	ug/l	8,300	600	4,000	1,000
Xylenes	ug/l	22,000	1,000	16,000	2,000
Ethyl Benzene	ug/l	7,300	800	7,200	2,000


 Hugh R. McLean
 Supervisory Chemist

HRM:mln

5787 Scarlett Court
Dublin, CA



For Lease

North
End

22.5'

West
Tank

24'

South
End

East
Tank

36'

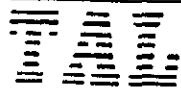
-Water level for West Tank
= 9.5'

-Water level for East Tank
= 11'

Wire & Wood Fence

84 Lumber

Scarlett
Court



DATE: 11/10/88
LOG NO.: 6618
DATE SAMPLED: 11/7/88
DATE RECEIVED: 11/7/88

11

CUSTOMER: Atlas Hydraulic Corporation
REQUESTER: Bill Bender
PROJECT: 5787 Scarlet Court, Dublin, CA

Sample Type: Soil

Method and Constituent	Units	No. 8		No. 9	
		Concentration	Detection Limit	Concentration	Detection Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/kg	740,000	- 30,000	1,500,000	30,000
Modified EPA Method 8020:					
Benzene	ug/kg	18,000	1,000	29,000	1,000
Toluene	ug/kg	36,000	800	39,000	800
Xylenes	ug/kg	65,000	4,000	94,000	4,000
Ethyl Benzene	ug/kg	16,000	1,000	27,000	1,000

DATE: 11/10/88
 LOG NO.: 6618
 DATE SAMPLED: 11/7/88
 DATE RECEIVED: 11/7/88
 PAGE: Two

Sample Type: Soil

<u>Method and Constituent</u>	<u>Units</u>	<u>No. 10</u>		<u>No. 11</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>	<u>Concen- tration</u>	<u>Detection Limit</u>
DHS Method:					
Total Petroleum Hydro- carbons as Gasoline	ug/kg	610,000	30,000	2,200,000	30,000
Modified EPA Method 8020:					
Benzene	ug/kg	11,000	1,000	46,000	1,000
Toluene	ug/kg	16,000	800	70,000	800
Xylenes	ug/kg	11,000	4,000	210,000	4,000
Ethyl Benzene	ug/kg	14,000	1,000	62,000	1,000

DATE: /10/88
LOG NO.: 0018
DATE SAMPLED: 11/7/88
DATE RECEIVED: 11/7/88
PAGE: Three

Sample Type: Water

<u>Method and Constituent</u>	<u>Units</u>	<u>No. 7</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>
DHS Method:			
Total Petroleum Hydro- carbons as Gasoline	ug/l	32,000	10,000
Modified EPA Method 8020:			
Benzene	ug/l	5,500	200
Toluene	ug/l	3,100	100
Xylenes	ug/l	7,000	200
Ethyl Benzene	ug/l	750	200

Hugh R. McLean
Hugh R. McLean
Supervisory Chemist

HRM:mln

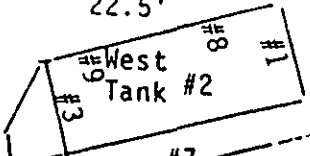


5787 Scarlett Court
Dublin, CA

For Lease

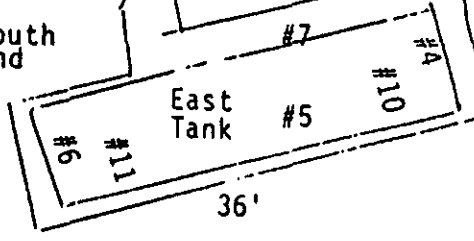
North
End

22.5'



South
End

#7



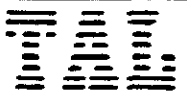
-Water level for West Tank
= 9.5'

-Water level for East Tank
= 11'

Wire & Wood Fence

84 Lumber

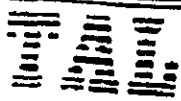
Scarlett
Court



CHAIN OF CUSTODY RECORD

PROJ. NO.		PROJECT NAME		NO. OF CONTAINERS		REMARKS		
02172		HH00 (84)		2		<div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;">TPH-6/B3/TVE</div>		
		5787 Scarlet Ct. Dublin CA						
SAMPLERS: (Signature)								
TAL (Robert Bennett, Patch Super) 1								
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION			
7	11/7	10:25	✓		TANK WATER	✓	WATER	
8	11/7	10:30	✓		WEST TANK/NORTH END	✓	SOIL	
9	11/7	10:35	✓		WEST TANK SO. END	✓	SOIL	
10	11/7	10:40	✓		W. END/EAST TANK	✓	SOIL	
11	✓	✓	✓		SO END/East Tank	✓	SOIL	
Relinquished by: (Signature)		Date / Time	Received by: (Signature)		Relinquished by: (Signature)		Date / Time	Received by: (Signature)
Relinquished by: (Signature)		Date / Time	Received by: (Signature)		Relinquished by: (Signature)		Date / Time	Received by: (Signature)
Relinquished by: (Signature)		Date / Time	Received for Laboratory by: (Signature)		Date / Time	Remarks		

Samples are high



DATE: 12/29/88
 LOG NO.: 6817
 DATE SAMPLED: 12/19/88
 DATE RECEIVED: 12/19/88

III

CUSTOMER: Atlas Hydraulic Corporation
 REQUESTER: Bill Bender
 PROJECT: Lew Doty, 5787 Scarlet Court, Dublin, CA

Sample Type: Soil

Method and Constituent	Units	No. 12		No. 13		No. 14	
		Concentration	Detection Limit	Concentration	Detection Limit	Concentration	Detection Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	< 500	500	16,000	500	84,000	500
Modified EPA Method 8020:							
Benzene	ug/kg	< 70	70	< 70	70	< 70	70
Toluene	ug/kg	< 70	70	< 70	70	< 70	70
Xylenes	ug/kg	< 300	300	< 300	300	< 300	300
Ethyl Benzene	ug/kg	< 100	100	< 100	100	< 100	100

DATE: 12/29/88
 LOG NO.: 6817
 DATE SAMPLED: 12/19/88
 DATE RECEIVED: 12/19/88
 PAGE: Two

Sample Type: Soil

Method and Constituent	Units	No. 15		No. 16		No. 17	
		Concen- tration	Detection Limit	Concen- tration	Detection Limit	Concen- tration	Detection Limit
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/kg	84,000	500	< 500	500	< 500	500
Modified EPA Method 8020:							
Benzene	ug/kg	< 70	70	< 70	70	< 70	70
Toluene	ug/kg	< 70	70	< 70	70	< 70	70
Xylenes	ug/kg	670	300	< 300	300	< 300	300
Ethyl Benzene	ug/kg	< 100	100	< 300	100	< 100	100

Hugh R. McLean
 Hugh R. McLean
 Supervisory Chemist

HRM:vls

LEW DOTY CADILLAC
5787 SCARLET COURT
DUBLIN, CA.



FOR LEASE

16
17
STOCKPILE

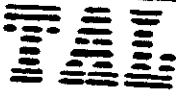
HOLE

12
13
14
15
*
STOCKPILE
DEBRIS
TO BE
REMOVED

WIRE & WOOD FENCE

84 LUMBER

SCARLET COURT



CHAIN OF CUSTODY RECORD

PROJ. NO. PROJECT NAME ST87 Scarlet Court, Dublin, CA
ATLAS HYDRAULIC, LEW DOTY

SAMPLERS: (Signature)
Tham Flow, TAT

NO. OF CONTAINERS

TPHG/BXG

REMARKS

STA. NO. NF	DATE	TIME	COMPL.	GRAB	STATION LOCATION
----------------	------	------	--------	------	------------------

12	2/28	3:00	✓	✓	SOIL PILE BY THE HOLE
13		3:05	✓		↓
14		3:10	✓		↓
15		3:15	✓		↓
16		3:20	✓	✓	SOIL PILE BY THE BRDG
17	↓	3:25	✓		↓

1988

5 day, TAT

Relinquished by: (Signature)

Date / Time

Received by: (Signature)

Relinquished by: (Signature)

Date / Time

Received by: (Signature)

Relinquished by: (Signature)

Date / Time

Received by: (Signature)

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Date / Time

Received by: (Signature)

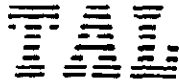
Relinquished by: (Signature)

Date / Time

Received for Laboratory by: (Signature)

Date / Time

Remarks



DATE: 2/24/89
LOG NO.: 7046
DATE SAMPLED: 2/22/89
DATE RECEIVED: 2/22/89

IV

CUSTOMER: Atlas Hydraulic Corporation
REQUESTER: Bill Bender
PROJECT: Lew Doty, 5787 Scarlett Court, Dublin, CA

Sample Type: Water

Method and Constituent	Units	No. 18		No. 19	
		Concen- tration	Detection Limit	Concen- tration	Detection Limit
DHS Method:					
Total Petroleum Hydro- carbons as Gasoline	ug/l	7.7	2	16	2
Modified EPA Method 8020:					
Benzene	ug/l	0.81	0.3	0.72	0.3
Toluene	ug/l	0.57	0.2	0.56	0.2
Xylenes	ug/l	0.92	0.5	0.61	0.5
Ethyl Benzene	ug/l	< 0.4	0.4	< 0.4	0.4

Dan Farah

Dan Farah, Ph.D.
Supervisory Chemist

DF:mln

03/07/89

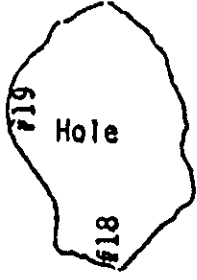
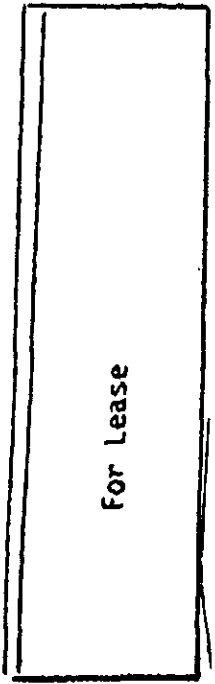
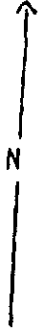
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415 783 1512

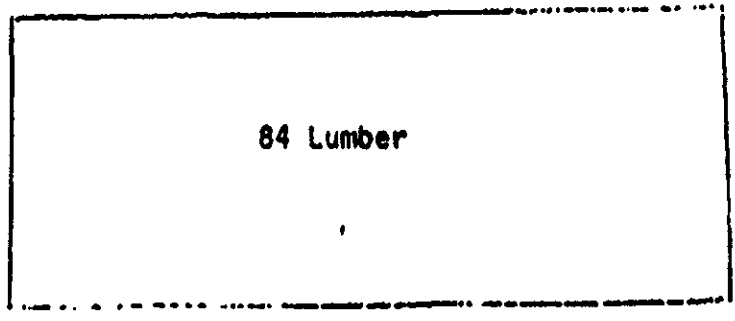
TRACE ANALYSIS

002

LEW DOTY CADILLAC
5787 Scarlett Court
Dublin, CA



Wire & Wood Fence



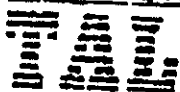
7046

CHAIN OF CUSTODY RECORD

PROJ. NO.		PROJECT NAME				NO. OF CONTAINERS	REMARKS		
5737		<i>Sancti Court Residential</i>							
SAMPLER(S) (Signature): <i>[Signature]</i>									
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	TAKEN-GIB TREE	Taken by the flask		
No. 98	2/27	1:10						2WA K	
No. 99	2/27	1:30						2WA L	
							1 day TAT.		
Relinquished by: (Signature)		Date / Time	Received by: (Signature)		Relinquished by: (Signature)		Date / Time	Received by: (Signature)	
Relinquished by: (Signature)		Date / Time	Received by: (Signature)		Relinquished by: (Signature)		Date / Time	Received by: (Signature)	
Relinquished by: (Signature)		Date / Time	Received for Laboratory by: (Signature)		Date / Time		Remarks		

Trace Analysis Laboratory, Inc.
 9423 Investment Boulevard, #8 • Hayward, California 94545

(415) 783-6960



DATE: 5/10/89
 LOG NO.: 7287
 DATE SAMPLED: 4/19/89
 DATE RECEIVED: 4/19/89

VI

CUSTOMER: Atlas Hydraulic Corporation
 REQUESTER: Bill Bender
 PROJECT: Lew Doty Cadillac, 5787 Scarlett Court, Dublin

Sample Type: Soil

Method and Constituent	Units	No. 20		No. 21		No. 22	
		Concentration	Detection Limit	Concentration	Detection Limit	Concentration	Detection Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	59,000	500	210,000	2,000	960,000	2,000
Modified EPA Method 8020:							
Benzene	ug/kg	< 6	6	3,600	40	16,000	40
Toluene	ug/kg	< 6	6	7,300	30	7,300	30
Xylenes	ug/kg	< 30	30	30,000	200	100,000	200
Ethyl Benzene	ug/kg	< 8	8	3,400	50	28,000	50

DATE: 5/10/89
LOG NO.: 7287
DATE SAMPLED: 4/19/89
DATE RECEIVED: 4/19/89
PAGE: Two

Sample Type: Soil

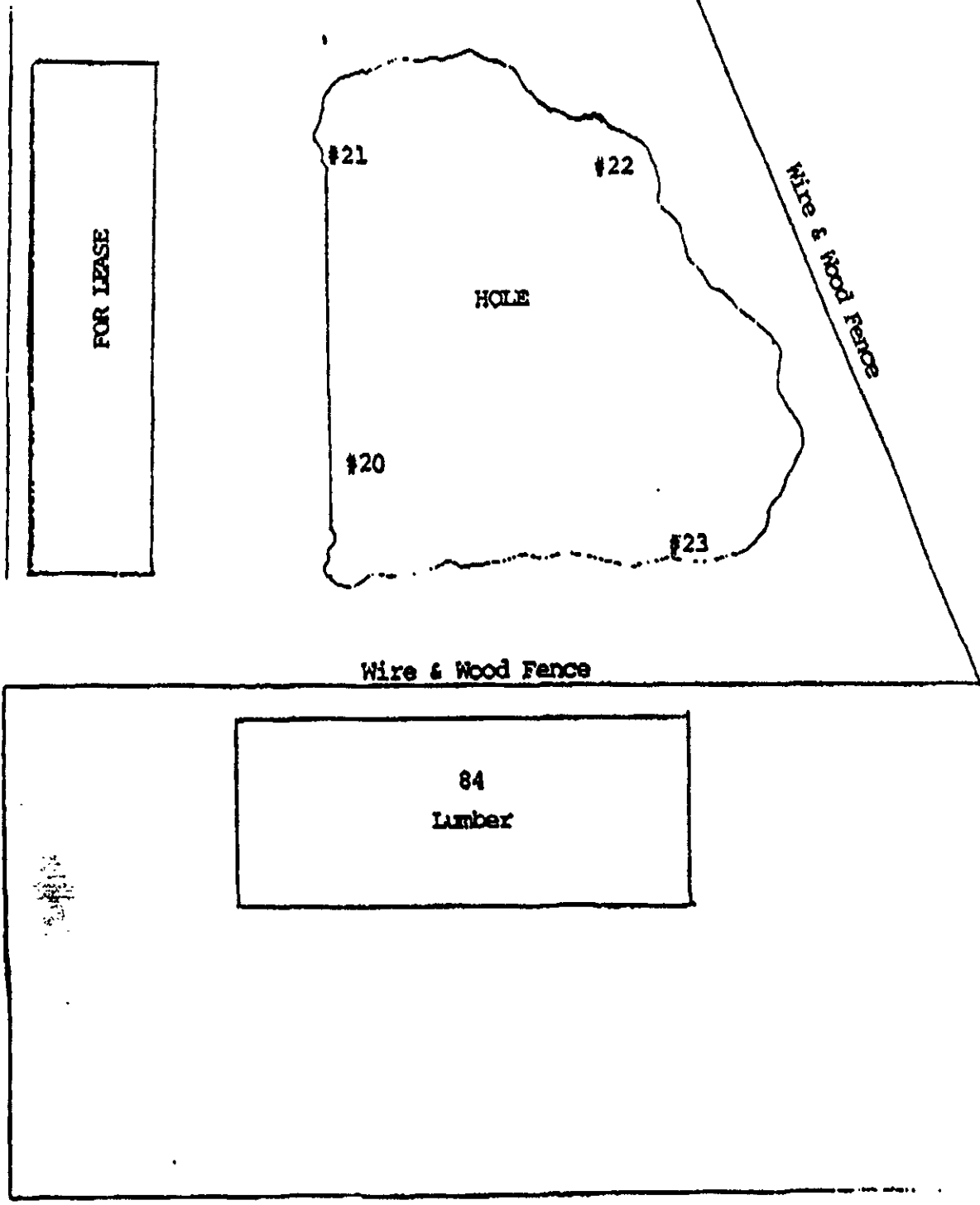
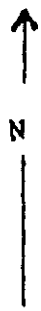
<u>Method and Constituent</u>	<u>Units</u>	<u>No. 23</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>
DHS Method:			
Total Petroleum Hydro- carbons as Gasoline	ug/kg	210,000	2,000
Modified EPA Method 8020:			
Benzene	ug/kg	5,200	40
Toluene	ug/kg	7,600	30
Xylenes	ug/kg	45,000	200
Ethyl Benzene	ug/kg	5,500	50

Dan Farah

Dan Farah, Ph.D.
Supervisory Chemist

DF:k1

LEW DOTY CADILLAC
5787 Scarlett Court
Dublin, CA



SCARLETT COURT

LETTER OF TRANSMITTAL



LOUIS A. RICHARDSON
 Consulting Engineering Geologist
 202 Jason Way
 Mountain View, California 94043
 (415) 967-1000

DATE June 15, 1989

ATTENTION Rafat A. Shahid

RE Unauthorized Leak Release
 Underground Tank
 5787 Scarlet Court
 Dublin, CA
 (Lew Doty Property)

TO
 Alameda County
 Hazardous Materials Division
 80 Swan Way, Room 200
 Oakland, CA 94621

WE ARE SENDING ATTACHED UNDER SEPARATE COVER VIA _____

SAMPLES SHOP DRAWINGS CONTRACTS
 LITERATURE ENGINEERING DRAWINGS RR OTHER Progress Report and
 PLANS CHANGE ORDERS Work Plan.
 PRINTS LETTERS

COPIES	DATE	NO	DESCRIPTION
1	6/12/89		Report

THESE ARE BEING SENT:

<input type="checkbox"/> FOR YOUR APPROVAL	<input type="checkbox"/> APPROVED AS NOTED	<input type="checkbox"/> RESUBMIT _____ COPIES FOR APPROVAL
<input type="checkbox"/> FOR YOUR USE	<input type="checkbox"/> APPROVED AS SUBMITTED	<input type="checkbox"/> SUBMIT _____ COPIES FOR DISTRIBUTION
<input checked="" type="checkbox"/> FOR YOUR REVIEW	<input type="checkbox"/> APPROVED AS CHANGED	<input type="checkbox"/> RENEW _____ COPIES FOR
<input type="checkbox"/> FOR YOUR COMMENTS	<input type="checkbox"/> REJECTED AS NOTED	
<input type="checkbox"/> FOR YOUR SIGNATURE	<input type="checkbox"/> REJECTED AS CHANGED	
<input type="checkbox"/> FOR YOUR _____	<input type="checkbox"/> RETURNED FOR CORRECTIONS	

NOTES
 Transmitted at the request of Lew Doty.

COPY TO
 Lew Doty

SIGNATURE *Louis A. Richardson*

TITLE CEG 1085 DATE 6/15/89

APPENDIX B
ANALYTICAL REPORT PROVIDED BY ATLAS HYDRAULICS

atlas hydraulic corporation

2439 INDUSTRIAL PKWY. WEST P.O. BOX 56567-HAYWARD, CA 94617
FAX# 415-786-4263 PH# 415-786-3393

FAX COVER SHEET

TO: Dariusz Dastmachi

LOCATION: Clayton Environmental

TELEPHONE: 426-2609 FAX# 426-0106

DATE: 12-21-89

NUMBER OF PAGES: 13 (INCLUDING COVER PAGE)

FROM: J. P. Stevens

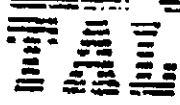
LOCATION: Hayward

TELEPHONE:

ADDITIONAL INFORMATION

Trace Analysis Laboratory, Inc.
 3423 Investment Boulevard, #8 • Hayward, California 94545

(415) 783-6



DATE: 11/1/88

LOG NO.: 6585

DATE SAMPLED: 10/28/88

DATE RECEIVED: 10/28/88

CUSTOMER Atlas Hydraulic Corporation
 REQUESTER: Bill Bender
 PROJECT: 5787 Scarlet Court, Dublin, CA

Sample Type: Soil

Method and Constituent	Units	No. 1		No. 3		No. 4	
		Concen- tration	Detection Limit	Concen- tration	Detection Limit	Concen- tration	Detect Limit
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/kg	1,100,000	6,000	1,100,000	6,000	500,000	6,000
Modified IPA Method 8020:							
Benzene	ug/kg	23,000	700	9,500	700	67,000	700
Toluene	ug/kg	8,200	90	15,000	90	370	90
Xylenes	ug/kg	26,000	400	54,000	400	1,900	400
Ethyl Benzene	ug/kg	13,000	100	19,000	100	12,000	100

DATE: 11/1/88
LOG NO.: 6585
DATE SAMPLED: 10/28/88
DATE RECEIVED: 10/28/88
PAGE: Two

Sample Type: Soil

<u>Method and Constituent</u>	<u>Units</u>	<u>No. 6</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>
DHS Method:			
Total Petroleum Hydro- carbons as Gasoline	ug/kg	3,400,000	60,000
Modified EPA Method 8020:			
Benzene	ug/kg	380,000	7,000
Toluene	ug/kg	100,000	900
Xylenes	ug/kg	200,000	4,000
Ethyl Benzene	ug/kg	21,000	1,000

DATE: 11/1/88
 LOG NO.: 6585
 DATE SAMPLED: 10/28/88
 DATE RECEIVED: 10/28/88
 PAGE: Three

Sample Type: Water

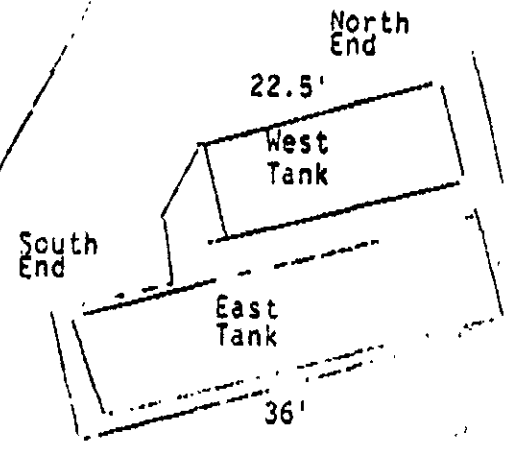
Method and Constituent	Units	No. 2		No. 5	
		Concentration	Detection Limit	Concentration	Detection Limit
DKS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/l	350,000	10,000	180,000	20,000
Modified EPA Method 8020:					
Benzene	ug/l	11,000	700	27,000	1,000
Toluene	ug/l	8,300	600	4,000	1,000
Xylenes	ug/l	22,000	1,000	16,000	2,000
Ethyl Benzene	ug/l	7,300	800	7,200	2,000

Hugh R. McLean
 Hugh R. McLean
 Supervisory Chemist



5787 Scarlett Court
Dublin, CA

For Lease



- Water level for West Tank = 9.5'
- Water level for East Tank = 11'

Wire & Wood Fence

84 Lumber

Scarlett Court

CHAIN OF CUSTODY RECORD

Site #120 Dept. District A

SAMPLERS (Signature)						NO OF CONTAINERS	REMARKS
STA NO	DATE	TIME	COMP	GRAB	STATION LOCATION		
1	1/28/88	5:25	✓	✓	North End West Tank	1	✓ soil at H ₂ O level
2			✓	✓	West Tank	2	✓ (VOA's) H ₂ O
3			✓	✓	South End, West Tank	1	✓ soil
4			✓	✓	North End, East Tank	1	✓ soil
5			✓	✓	East Tank	2	✓ (VOA's) H ₂ O
6			✓	✓	South End, East Tank	1	✓ soil
N 1/28/88							1 day TAT as per Tex 94-1-28/88

TIP-G-52A

[Signatures]

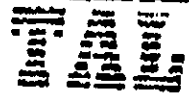
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Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

PCU B1:ERO TELETYPE 7010 12-21-89 3:13PM
 DEC-21-89 THU 14:46 H L G S H Y D R A U L I C C O R P
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 P. 000

MAY 10 09 WED 13:55 ATLAS HYDRAULIC CORP P. 01
 05/10/89 13:38 415 783 1512 TRACE ANALYSIS 200

Trace Analysis Laboratory, Inc.
 9423 Investment Boulevard, #8 • Hayward, California 94545

(415) 783-690



DATE: 5/10/89
 LOG NO.: 7287
 DATE SAMPLED: 4/19/89
 DATE RECEIVED: 4/19/89



CUSTOMER: Atlas Hydraulic Corporation
 REQUESTER: Bill Bender
 PROJECT: Lew Doty Cadillac, 5787 Scarlett Court, Dublin

Sample Type: Soil

Method and Constituent	Units	No. 20		No. 21		No. 22	
		Concentration	Detection Limit	Concentration	Detection Limit	Concentration	Detection Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	59,000	500	210,000	2,000	960,000	2,000
Modified EPA Method 8020:							
Benzene	ug/kg	< 6	6	3,600	40	16,000	40
Toluene	ug/kg	< 6	6	7,300	30	7,300	30
Xylenes	ug/kg	< 30	30	30,000	200	100,000	200
Ethyl Benzene	ug/kg	< 8	8	3,400	50	28,000	50

DATE: 5/10/89
LOG NO.: 7287
DATE SAMPLED: 4/19/89
DATE RECEIVED: 4/19/89
PAGE: Two

Sample Type: Soil

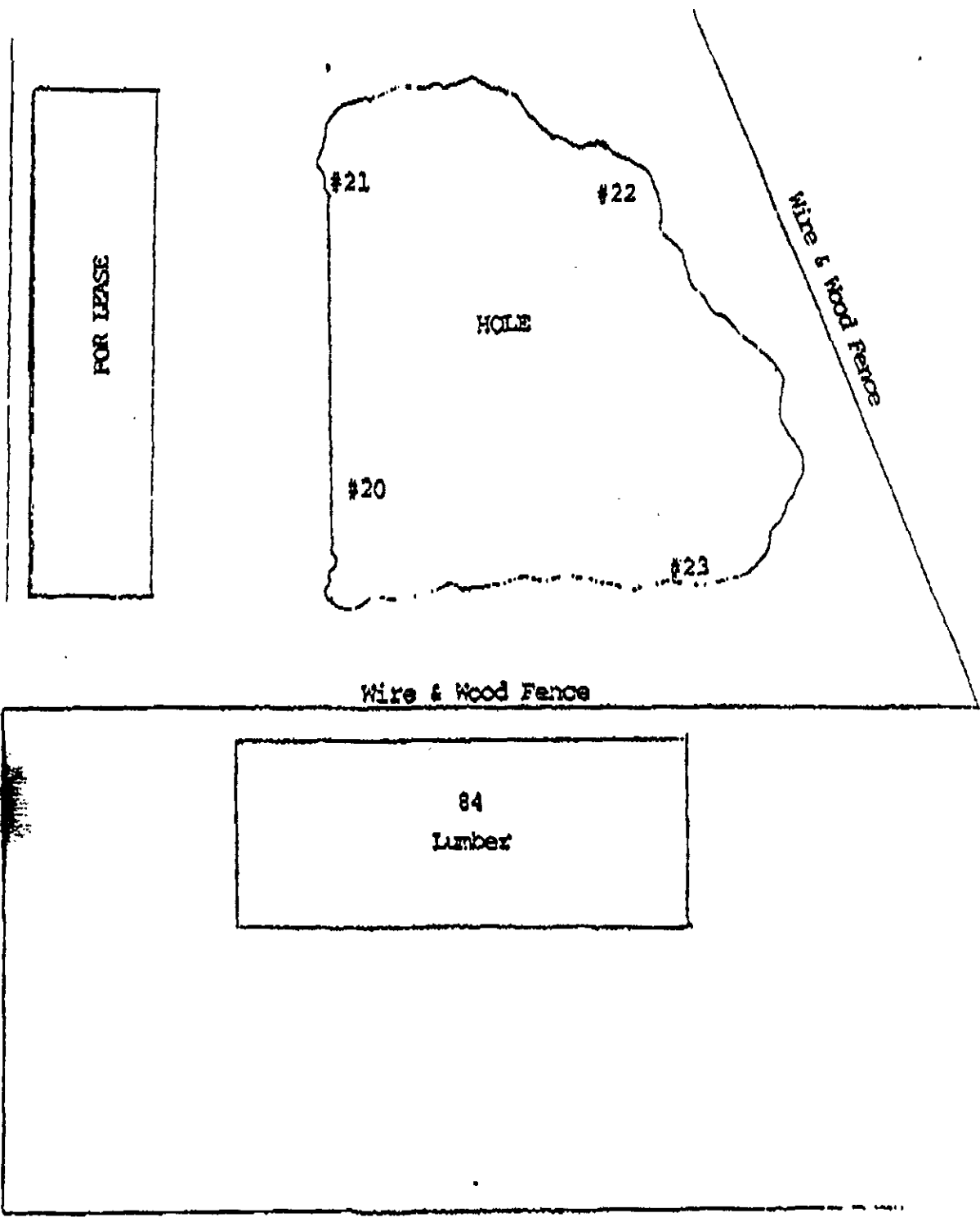
<u>Method and Constituent</u>	<u>Units</u>	<u>No. 23</u>	
		<u>Concen- tration</u>	<u>Detection Limit</u>
DHS Method:			
Total Petroleum Hydrocarbons as Gasoline	ug/kg	210,000	2,000
Modified EPA Method 8020:			
Benzene	ug/kg	5,200	40
Toluene	ug/kg	7,600	30
Xylenes	ug/kg	45,000	200
Ethyl Benzene	ug/kg	5,500	50

Dan Farah
Dan Farah, Ph.D.
Supervisory Chemist

DF:kl

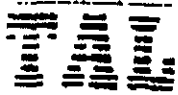
05/10/89 13:38 0415 700 1312

LEW DOTY CADILLAC
5787 Scarlett Court
Dublin, CA



Trace Analysis Laboratory, Inc.
 7423 Investment Boulevard, #8 • Hayward, California 94545

(415) 783-6960



DATE: 8/31/89
 LOG NO.: 7724
 DATE SAMPLED: 8/14/89
 DATE RECEIVED: 8/14/89

CUSTOMER: Atlas Hydraulic Corporation
 REQUESTER: Jim Givens
 PROJECT: Lew Doty, 5787 Scarlett Court, Dublin, CA

Sample Type: Soil

Method and Constituent	Units	No. 29		No. 30		No. 31	
		Concen- tration	Detection Limit	Concen- tration	Detection Limit	Concen- tration	Detect- Limit
DHS Method.							
Total Petroleum Hydro- carbons as gasoline	ug/kg	< 500	500	< 500	500	< 500	500
Modified EPA Method 8020:							
Benzene	ug/kg	< 40	40	< 40	40	< 40	40
Toluene	ug/kg	< 40	40	< 60	60	< 60	60
Xylenes	ug/kg	< 100	100	< 100	100	< 100	100
Ethyl Benzene	ug/kg	< 50	50	< 50	50	< 50	50

DATE: 8/31/89
 LOG NO.: 7724
 DATE SAMPLED: 8/14/89
 DATE RECEIVED: 8/14/89
 PAGE: Two

Sample Type: Soil

Method and Constituent	Units	No. 32		No. 33		No. 34	
		Concentration	Detection Limit	Concentration	Detection Limit	Concentration	Detection Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	< 500	500	< 500	500	< 500	500
Modified EPA Method 8020:							
Benzene	ug/kg	< 40	40	< 40	40	< 40	40
Toluene	ug/kg	< 40	40	< 40	40	< 40	40
Xylenes	ug/kg	< 100	100	< 100	100	< 100	100
Ethyl Benzene	ug/kg	< 50	50	< 50	50	< 50	50
<hr/> <div style="display: flex; justify-content: space-around;"> No. 35 No. 36 </div> <hr/>							
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	< 500	500	< 500	500	< 500	500
Modified EPA Method 8020:							
Benzene	ug/kg	< 40	40	< 40	40	< 40	40
Toluene	ug/kg	< 80	80	< 40	40	< 40	40
Xylenes	ug/kg	< 200	200	< 100	100	< 100	100
Ethyl Benzene	ug/kg	< 50	50	< 50	50	< 50	50

Dan Farah

Dan Farah, Ph.D.
 Supervisory Chemist

7724

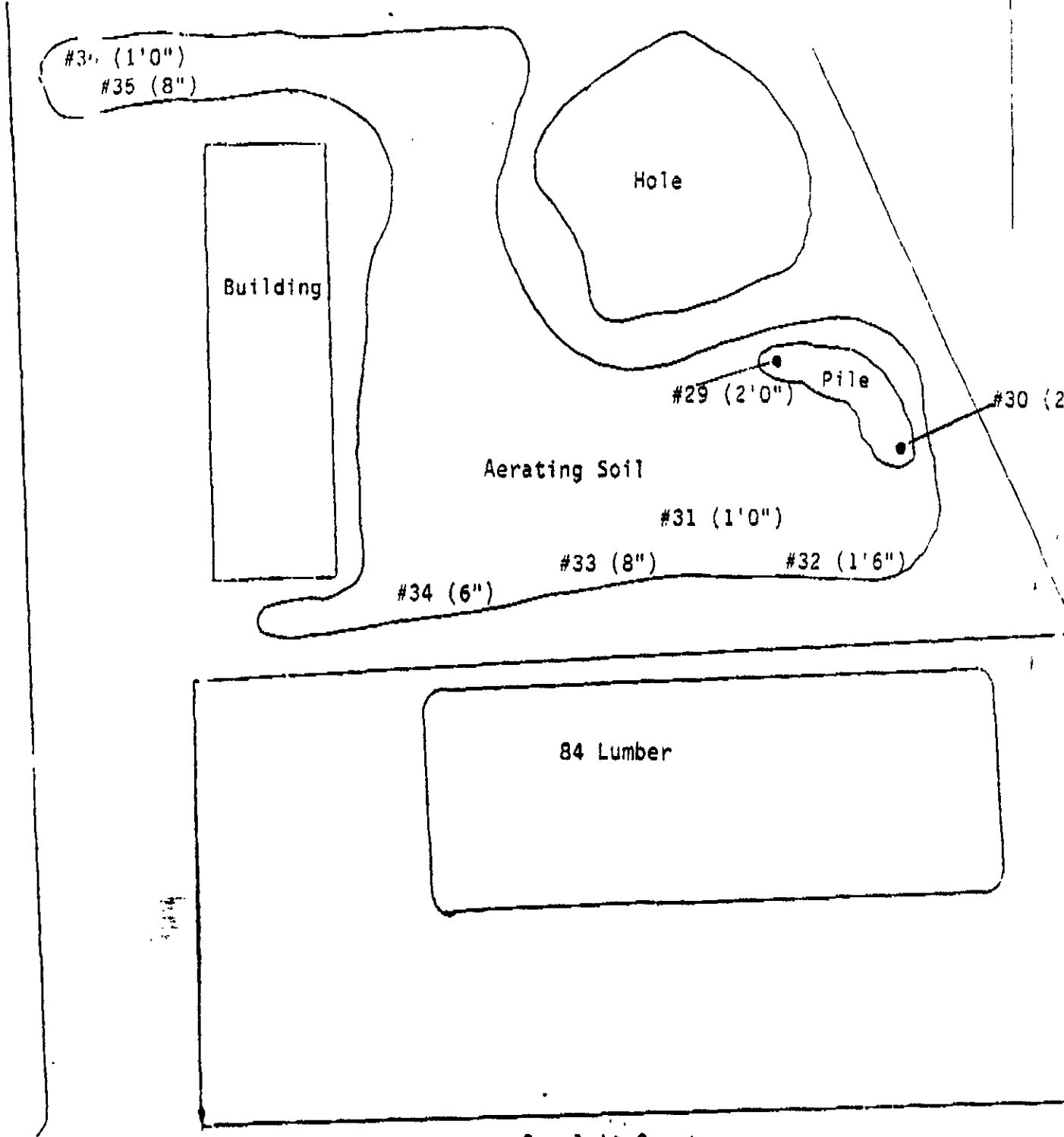
CHAIN OF CUSTODY RECORD

PROJECT NO.		PROJECT NAME		Dublin CA		NO.		REMARKS	
SAMP. E.C. Number		APR 11 11:49		OF		CON-		TAINERS	
ST. NO.	DATE	TIME	CONT.	GRAB	STATION LOCATION				
#27	8/4	10:01	X		Soil		X		Soil/BT
#30			X		Soil		X		
#31			X		Soil		X		
#32			X		Soil		X		
#33			X		Soil		X		
#34			X		Soil		X		
#35	8/4	11:49	X		Soil		X		
#36	8/4	11:49	X		Soil		X		
Received by: [Signature]		Date/Time	Received by: [Signature]		Date/Time	Received by: [Signature]			
Received by: [Signature]		Date/Time	Received by: [Signature]		Date/Time	Received by: [Signature]			
Received by: [Signature]		Date/Time	Received by Laboratory of: [Signature]		Date/Time	REMARKS Richardson - ATLAS			

ATLAS

Lew Doty
5778 Scarlett
Dublin, California

N



APPENDIX C

**DOCUMENTS OBTAINED FROM RWQCB ABOUT NEARBY
SITES WITH REPORTED LEAKING
UNDERGROUND STORAGE TANKS**



groundwater resources inc.

5400 ALDRIN CT.
BAKERSFIELD, CALIFORNIA 93313

General Engineering Contractor
Class A/Haz License No. 520768

September 26, 1989

Gil Wistar
Alameda County Department
of Environmental Health
80 Swan Way, Rm. 200
Oakland, CA 94621

Re: Scotsman Corp., Dublin CA

Dear Mr. Wistar,

Pursuant to your letter dated March 28, 1989 requesting a monthly update on gradient determinations and water level data and bi-monthly groundwater sampling for the monitoring wells installed at the Scotsman Corp. facility, the following information has been submitted to your office for review.

Depth to groundwater measurements were recorded on August 30, 1989 and calculated to Mean Sea Level as follows:

MW-1	322.85 ft msl
MW-2	323.65 ft msl
MW-3	323.54 ft msl
MW-4	322.64 ft msl
MW-5	322.6 ft msl *
MW-6	322.65 ft msl
MW-7	323.0 ft msl *

* Wells not surveyed, depths are approximations.

Calculations indicate the direction of the groundwater gradient to be 33 degrees west of south with a slope of approximately 3.4 feet per 1000 feet (see Plate 1).

Enclosed are the analysis results for the water sampled from the groundwater monitoring wells present at the site. The samples were analyzed for BTX&E, TPH, TDS and pH. The wells were bailed dry and allowed to recover to the static water level before sampling. The samples were sealed, labeled and chilled at 4 degrees Celsius then transferred under a Chain of Custody to a State Certified Laboratory for analysis.

Groundwater gradient measurements will continue to be recorded on a monthly basis as per your request.

If you have further questions please give me a call at (805) 835-7700.

Sincerely,

Timothy C. Reed
Project Geologist

Encl.

cc: Mr. Chris Ingram, Scotman Corporation

MAILING ADDRESS: P.O. BOX 9383, BAKERSFIELD, CA 93389
LOS ANGELES (213) 724-3147

(805) 835-7700



groundwater resources inc.

SCOTSMAN CORPORATION
6055 Scarlett Ct.
Dublin, California

SITE CHARACTERIZATION REPORT
June 30, 1989



groundwater resources inc.

SCOTSMAN CORPORATION
6055 Scarlett Ct.
Dublin, California

SITE CHARACTERIZATION REPORT
June 30, 1989

TABLE OF CONTENTS

1.0	INTRODUCTION
2.0	BACKGROUND
3.0	BORING AND MONITORING WELL COMPLETIONS
4.0	SAMPLING PROCEDURES
5.0	FINDINGS
6.0	CONCLUSIONS
	6.1 Discussion of Vadose
	6.2 Discussion of Groundwater
7.0	RECOMMENDATIONS
8.0	LIMITATIONS

ILLUSTRATIONS

PLATE 1	Location Map
PLATE 2	Plot Plan
PLATE 3	Detail of Tank Location
PLATE 4-9	Logs of Borings
PLATE 10	Gradient Map

APPENDIX

A.	Laboratory Analytical Reports
B.	Chain of Custody Forms
C.	Sampling Protocol



1.0 INTRODUCTION

This report provides the results of an investigation to further determine the extent of a hydrocarbon plume in the groundwater at the Scotsman Corporation facility at 6055 Scarlett Ct., Dublin, California. Groundwater Resources, Inc. (GRI) recommends that further drilling and sampling be done before a final remediation plan is submitted.

2.0 BACKGROUND

Two 500 gallon underground gasoline storage tanks were removed from the Scotsman facility on October 23, 1987. During the removal, corrosion was noted on the tanks and one of the tanks was described as having a hole by the fill point. The water table was observed near the tank bottoms at six and one-half feet. Laboratory analysis of the samples reported substantial hydrocarbon levels in the soil. Based on this preliminary assessment, the County Department of Environmental Health ordered a site investigation. In response to GRI's Site investigation report, dated 1-19-89, the Department requested further work to completely define the extent of the hydrocarbon plume. In addition, mapping of the groundwater gradient and information on the soil characteristics were requested.

3.0 BORINGS AND MONITORING WELL COMPLETIONS

Six groundwater monitoring wells were drilled on the days of May 24-25, 1989, bringing the total number of monitoring wells at the site to seven. Three monitoring wells, designated MW-2, MW-3 and MW-4 were placed 335 feet north, 285 feet northeast and 70 feet south of MW-1, respectively, in order to provide information on the local groundwater gradient (Plate 2). Well MW-6 was drilled at the south edge of the tank excavation to characterize the extent of soil contamination in this area and to aid in remediation. Well MW-7 was drilled through the concrete slab ten feet north of MW-1 to investigate possible migration of hydrocarbons under the slab. MW-5 was drilled 20 feet to the southwest of the source to find the extent of hydrocarbon migration downgradient of the suspected source (Plate 3).

All borings were completed as groundwater monitoring wells. The wells ranged in depth from 16.5 feet to 21.5 feet and were constructed with four-inch PVC casing and a 10 foot slotted interval (see Boring Logs, Plates 4-9). A grayish brown silty clay was generally encountered in all of the borings with the exception of MW-3 in which a fine grained, medium brown, silty sand was observed from 13-16.5 feet.



4.0 SAMPLING PROCEDURES

Soil samples were collected using a two and one-half inch diameter California Split Spoon Sampler containing three six-inch brass sleeves. The cores selected for analysis were sealed in the sleeve with teflon lined plastic end-caps and integrity tape. The core-sampler was washed and rinsed after each use to avoid cross contamination.

After the wells were constructed, approximately three to four well volumes were pumped from each well to insure that the water present in the well was representative of the groundwater in the formation. A groundwater sample was drawn from each well and analyzed for BTX&E and TPH (gasoline). All samples were labeled, chilled and transported to a State Certified Laboratory under a Chain of Custody (Appendix B).

5.0 FINDINGS

All soil samples analyzed during the latest drilling phase were reported as having no detectable Hydrocarbons present. Hydrocarbons were found in the groundwater in MW's 1, 2, 3, 5, 6 and 7. The highest readings for TPH (gasoline) were found in MW-6 at 76000 ppb with 6200 ppb Benzene (see Laboratory Results, Appendix A). TPH and Benzene levels for MW-7, 10 feet north of MW-1, were 1100 ppb and 67 ppb respectively. The downgradient location of MW-5 was chosen to help determine the degree of migration in that direction. A TPH concentration of 1400 ppb and 270 ppb Benzene was found there. In MW-4, no Hydrocarbon concentrations were detected. Both MW-2 and MW-3 showed positive results for Benzene at 15 ppb and 4.6 ppb respectively with MW-2 also reported as having 52 ppb TPH. Elevations of the wells were measured by a licensed surveyor and the local groundwater gradient was determined. The local gradient (as of 5-25-89) was calculated to be 3.7 feet per 1000 feet with a bearing of 15 degrees west of south (Plate 10). Additional soil samples were collected for permeability analysis. This data is not yet available.

6.0 CONCLUSIONS

6.1 Discussion of Vadose

Samples collected in the vadose zone from each monitoring well and boring have shown little or no significant contamination present in the soil above the watertable. The soil sample collected from boring B-3 at a depth of six feet (see Site Investigation Report, 1-19-89) was below the watertable or at the capillary fringe and may have contained contaminated groundwater. It should not therefore be considered part of the vadose zone.



It can be inferred from the analysis results obtained from the borings that vadose zone contamination is not a factor and does not require remedial action.

6.2 Discussion of Groundwater

The high readings for TPH in the groundwater at MW-6 (76000 ppb) and hydrocarbon concentrations reported in MW-5 indicates a southerly or downgradient migration of the plume. There may also have been some upgradient migration under the concrete slab, as shown by the positive readings in MW-7. This phase of plume delineation has shown that migration has occurred down the gradient more than 20 feet from the source and upgradient at least ten feet under the concrete pad. It is noteworthy that MW-2 and MW-3, which are more than 200 feet upgradient from the tank excavation, indicate that Benzene and TPH concentrations are present in the groundwater. GRI considers it very unlikely that these wells were affected by the suspected source at the tank location. It appears that there is either a second source of hydrocarbons to the north of the tank excavation or there is a high background level of hydrocarbons due to previous land use.

7.0 RECOMMENDATIONS

In view of the high levels of hydrocarbons in wells 1, 5, 6 and 7, and the apparent mobility of the plume, GRI recommends that a pump and treat program be started as soon as it is practical in order to prevent the further spread of the contaminants. In addition, further delineation of the plume should be continued. We propose to auger a series of holes around the known plume using a DeepRock Hydra-Drill with two-inch, continuous-flight augers, and take groundwater samples as needed until the plume is fully defined (Plate 3). These samples would be for screening purposes only, so that the approximate boundary of the plume could be defined. Upon completion of the analysis, monitoring wells would be constructed on the plume edges to verify the extent of hydrocarbon migration. In addition, a series of monitoring wells with discreet screened intervals would be placed in the plume to determine the vertical extent of groundwater contamination. Pump tests to determine the hydrologic conductivity of the soil would also be performed. Additional samples taken upgradient from the known plume are also recommended and a study of present and past land use should be done so that the source of the positive readings at MW-2 and MW-3 may be identified. When sufficient data was accumulated, GRI would develop and submit a plan for full remediation.

Pursuant to Alameda County Department of Environmental Health requirements, monthly water levels will be recorded in all monitoring wells and bi-monthly water samples will be collected



groundwater resources inc.

SCOTSMAN CORPORATION

and analyzed. Water level data, contour maps and gradient determinations will be submitted along with sampling results and hydrological characteristics.

8.0 LIMITATIONS

This report was prepared for the exclusive use of Scotsman Manufacturing Corporation as it relates to the property described. The discussion and conclusions presented in this report are based on:

- The test borings performed at this site.
- The observations of field personnel.
- The results of laboratory tests performed by SMC Laboratory, Bakersfield, California.
- Our understanding of the regulations of Alameda County and the California Regional Water Quality Control Board.

Possible variations in the soil or groundwater conditions which may exist beyond the points explored in this investigation might effect the validity of this report unless those variations or conditions come to our attention and are reviewed and assimilated into the conclusions and recommendations of this report. Also, changes in the hydrologic conditions found could occur with time due to variations in rainfall, temperature, regional water usage, or other factors, any of which could effect this report.

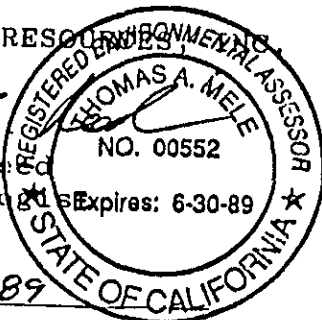
The services performed by GRI have been conducted in a manner consistent with the levels of care and skill ordinarily exercised by professionals currently practicing under similar conditions in California. The absence of contamination on or beneath the property cannot be guaranteed by this report. GRI is not responsible for any contamination or hazardous material found on the property. No other warranty expressed or implied, is made.

Respectfully submitted,

GROUNDWATER RESOURCES INC.

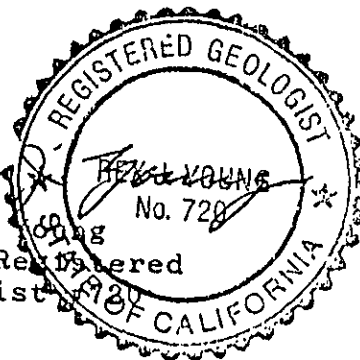
Timothy C. Reed

Timothy C. Reed
Project Geologist



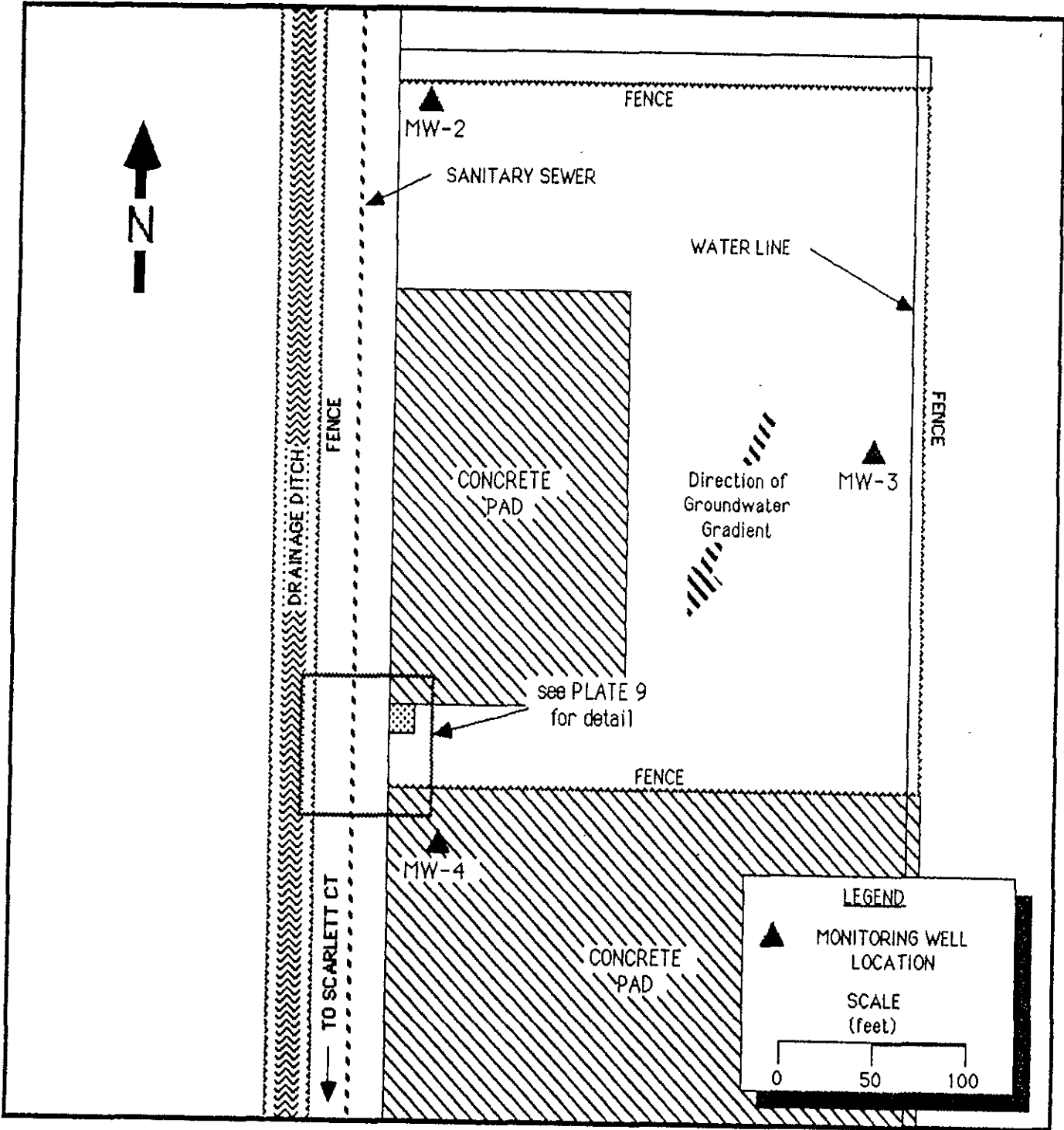
Rex J. Young


Rex J. Young
State Registered
Geologist



Date: 7-3-89

TCR:tab:r2/021





groundwater resources inc.

 environmental/geotechnical services

 Project Number: 55018

SCOTSMAN CORPORATION

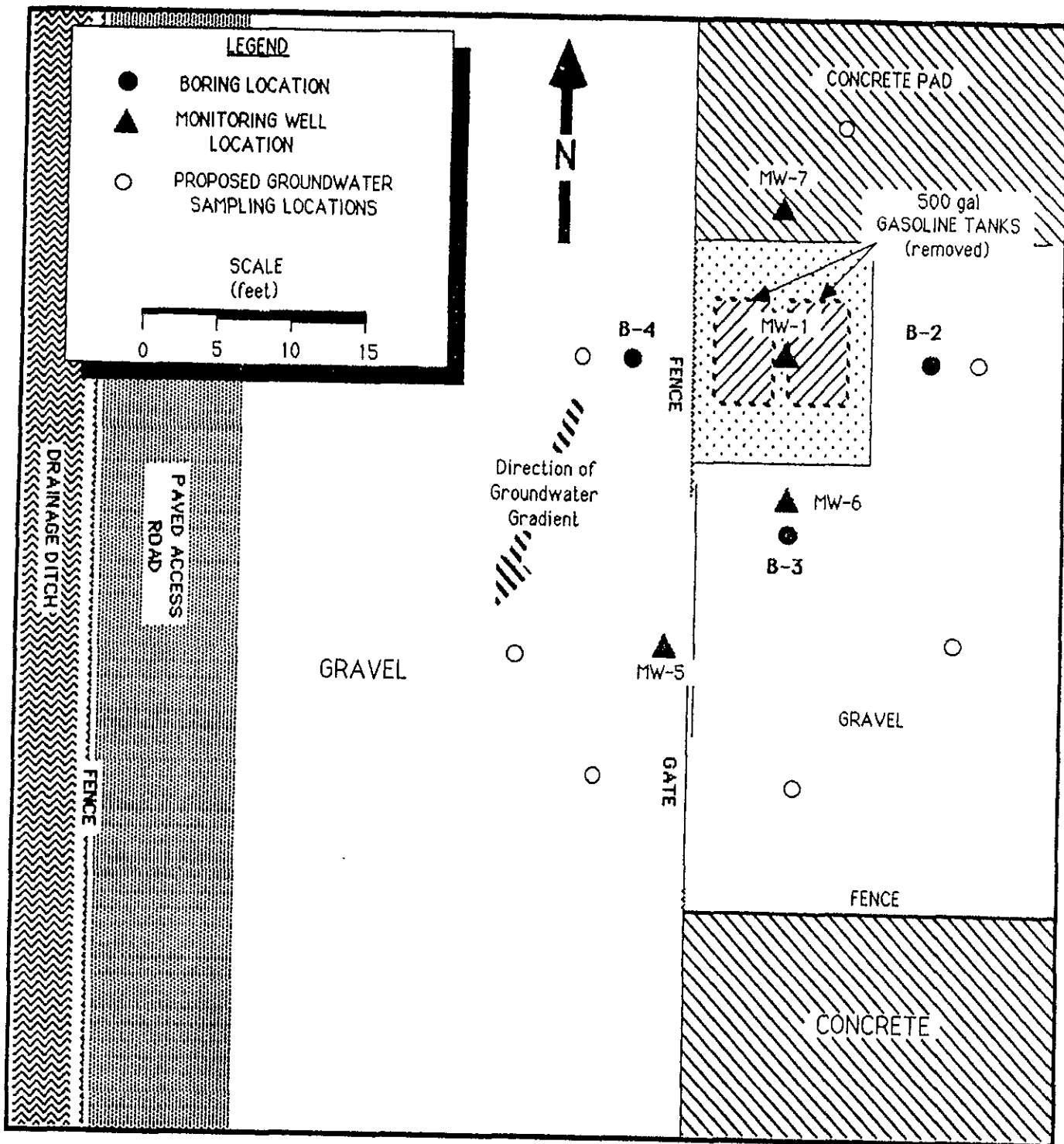
 6055 SCARLETT COURT


 DUBLIN, CA

PLOT PLAN

PLATE

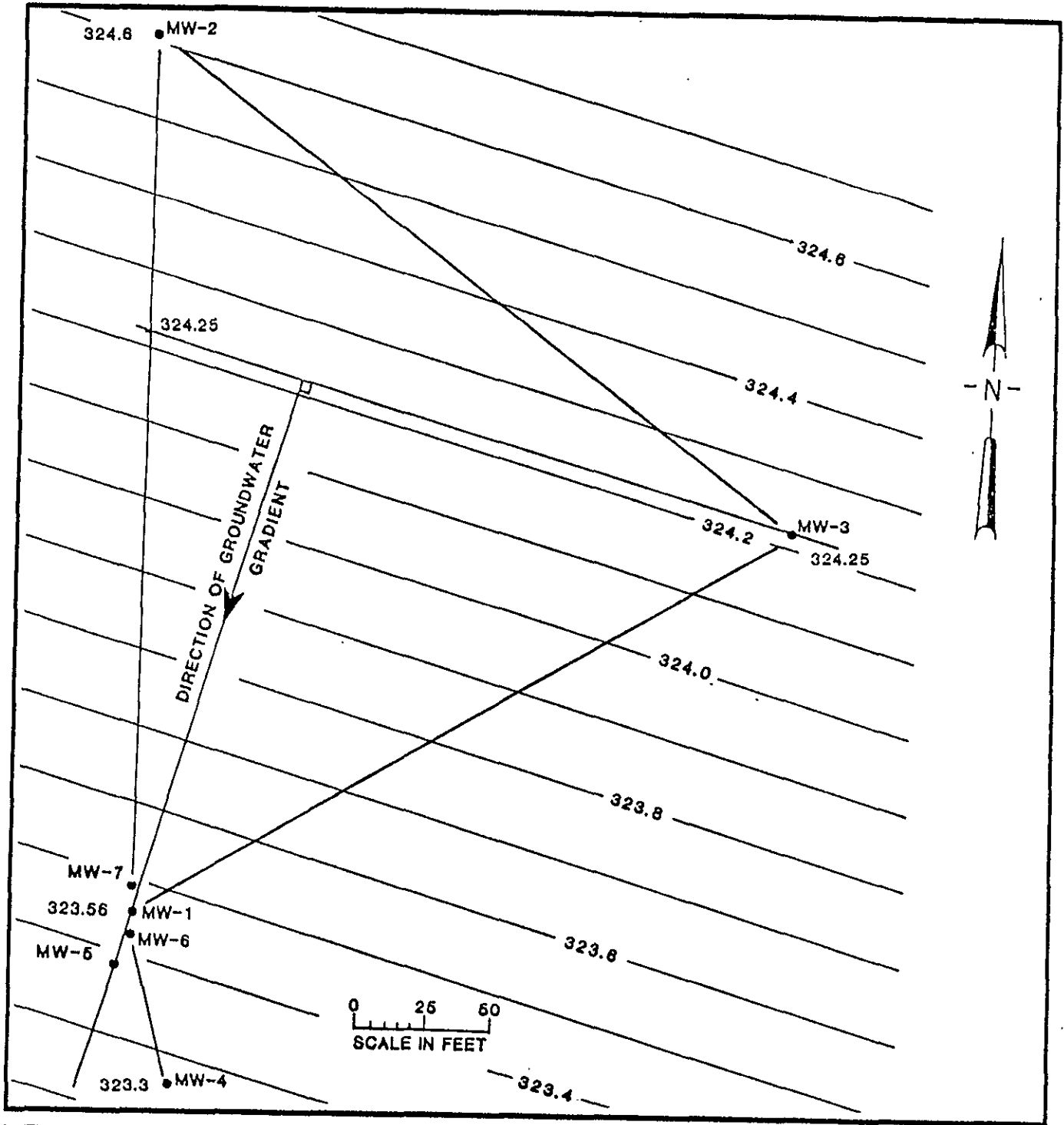
2



 groundwater resources inc.
 environmental/geotechnical services
 Project Number: 55018
 6-27-89

SCOTSMAN CORP.
 DUBLIN, CA.
 DETAIL OF TANK
 LOCATION

PLATE
 3



groundwater resources inc.
 environmental/geotechnical services
 Project Number: 55018

SCOTSMAN CORPORATION
 6055 SCARLETT COURT
 DUBLIN, CA

GRADIENT MAP

PLATE
 10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

1111 JACKSON STREET, ROOM 6040

OAKLAND 94607

Phone: Area Code 415
464-1255

October 3, 1989

Mr. Kevin Hunter
Exxon Company, U.S.A
P.O. Box 4415
Houston, Texas 77210-4415

Subject: Exxon Station # 7-3399, 2991 Hopyard Road, Pleasanton,
California

Dear Mr. Hunter:

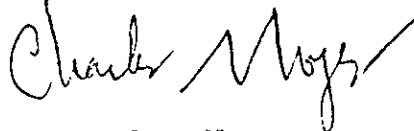
Following our telephone conversation on September 14 concerning proposed well locations, representatives of the City of Pleasanton, Zone 7, and the Board met to discuss the status of soil and groundwater remediation at the referenced station. During the meeting on September 20th, I reviewed the proposed shallow well locations. While replacement of mw-6 with an equivalent well (upgradient from the spill) was deemed reasonable, concern was expressed that a single shallow well in the prevailing downgradient direction would not adequately define the vertical and lateral extent of soil and groundwater pollution to the Southeast. Consequently, we believe the following is appropriate:

1. Installation of an A-B well cluster screened in the first and second water-bearing zones to be located directly to the Southeast of mw-7 and mw-2 (where we had previously sited the single downgradient well).
2. Three additional shallow wells forming a 180 degree ring in the prevailing downgradient direction around the spill site (see attached sketch map), to define the extent of soil and groundwater pollution.
3. If significant contamination is found at any of these wells, additional wells will be required to be in compliance with the November 3 deadline for complete site characterization required by Cleanup and Abatement Order 89-132.

As I indicated to you earlier, it is the responsibility of Exxon and its' consultant(s) to determine actual well locations and obtain any appropriate drilling permits. Accordingly, the sketch map is provided to you as a suggestion only.

While I will continue to be available to answer any questions you might have with regard to remediation at the site, matters concerning Exxon's compliance with the Cleanup and Abatement Order should be discussed first with Lester Feldman, Section Leader.

Sincerely,



Charles Noyes

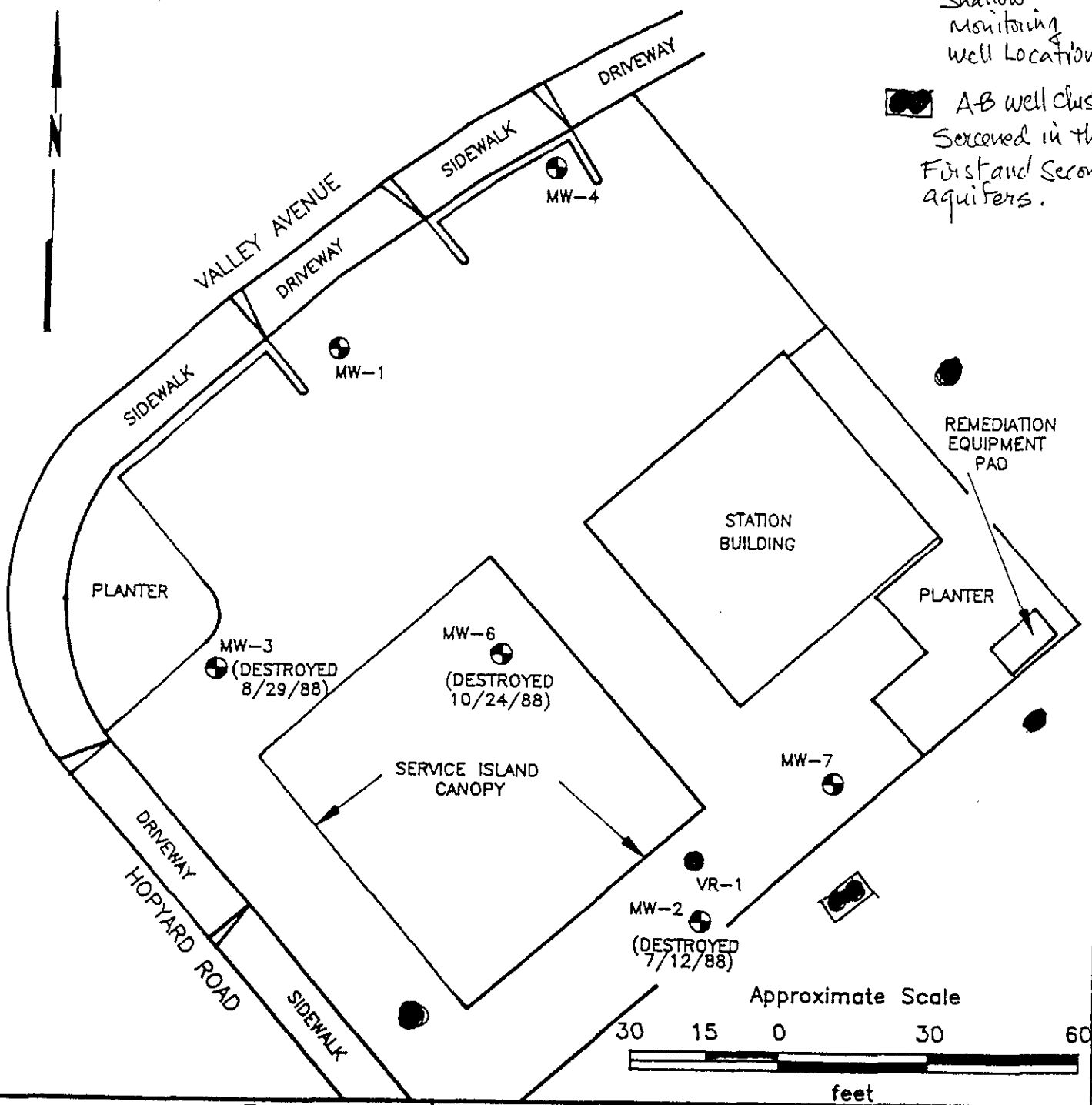
CC: Mr. S. S. Cusenza - City of Pleasanton
Mr. J. Killingstad - Alameda County Flood Control, Zone 7
Mr. R. Mueller - Pleasanton Fire Department
Mr. R. Shahid - Alameda County HMMP
Mr. M. Thompson - Alameda County Office of the District
Attorney
Mr. R. C. Witham - Applied Geosystems

MW-5S
 MW-5D
 RETAINING WALL

MW-7 ● = Monitoring well
 VR-1 ● = Vapor recovery well

Sketch Map of Suggested Monitoring Well Locations

Key: ● Suggested shallow monitoring well location
 [Symbol] AB well cluster screened in the First and Second aquifers.



PROJECT NO. 18034-4

GENERALIZED SITE PLAN
 Exxon Station No. 7-3399
 2991 Hopyard Road
 Pleasanton, California

PLATE
P - 2

FUELLEAK CASE FORM

Review Date 2, 14, 89
Rev Status C

Site Name SHELL
Streetnumber 5251
Street HOPYARD RD
City PLEASANTON
County Number 01

Priority A2
Rank -

Division LPC
Lead Agency ()

Primary Substance 8001-619

Secondary Substance -

Waste Oil -

Case Type U G D
Status N

Well Status IW

Soil Affected Y U
Max. Soil Conc. (ppm) -
Max. Residual Soil (ppm) -
Soil Status N

Groundwater Affected Y U
Max. Groundwater Impact 600
Groundwater Status N
Depth to Groundwater 8

Drinking Water Affected N Y U
Drinking Water Status N

Remedial Action NT W
Proof Action Needed NT

Date of Last Corr 9, 28, 88
Date Case Recieved 9, 28, 88

Case Evaluated By MCC
Consultant GTR Lab PEG

SHELL OIL CORPORATION
QUARTERLY REPORT TO THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
County of ALAMEDA Date of Report: 01/11/89

Site ID: 204550849 500 40TH STREET City of OAKLAND

Actions in past three months: NONE. ALL WELLS DESTROYED IN APRIL 1986 DURING CONSTRUCTION AT SITE.

Actions planned for next three months: A CONSULTANT TO BE SELECTED BY SHELL OIL COMPANY WILL REVIEW ALL DATA PERTAINING TO THIS SITE AND AN APPROPRIATE WORK PLAN WILL BE PREPARED.

Soil contamination defined?	No	Soil clean-up in progress?	No
Free product plume defined?	No	Free product clean-up in progress?	No
Dis'ld const'nt plume defined?	No	Dis'ld const'nt clean-up in progress?	No

Contractor: TO BE ASSIGNED

Site ID: 204613809 5251 HOPYARD ROAD City of PLEASANTON

Actions in past three months: GROUNDWATER SAMPLES WERE COLLECTED FROM THE MONITORING WELLS ON DECEMBER 14, 1988. A COPY OF THE GROUNDWATER SAMPLING REPORT AND ANALYTICAL RESULTS IS ATTACHED TO THE JAN. 9, 1989 EXECUTIVE SUMMARY.

Actions planned for next three months: PREPARE A WORK PLAN TO DEFINE THE EXTENT OF SOIL AND GROUNDWATER CONTAMINATION AT THE SITE. THE WORK PLAN WILL BE PREPARED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL.

Soil contamination defined?	No	Soil clean-up in progress?	No
Free product plume defined?	Yes	Free product clean-up in progress?	No
Dis'ld const'nt plume defined?	No	Dis'ld const'nt clean-up in progress?	No

Contractor: GETTLER-RYAN INC.

Site ID: UNKNOWN 7TH/BROADWAY City of OAKLAND

Actions in past three months: GROUNDWATER SAMPLES WERE COLLECTED ON OCTOBER 25, 1988. A COPY OF THE GROUNDWATER SAMPLING REPORT AND ANALYTICAL RESULTS IS ATTACHED TO THE JAN. 9, 1989 EXECUTIVE SUMMARY.

Actions planned for next three months: PREPARE A WORK PLAN TO DEFINE THE EXTENT OF SOIL AND GROUNDWATER CONTAMINATION AT THE SITE. THE WORK PLAN WILL BE PREPARED UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL.

Soil contamination defined?	No	Soil clean-up in progress?	No
Free product plume defined?	No	Free product clean-up in progress?	No
Dis'ld const'nt plume defined?	No	Dis'ld const'nt clean-up in progress?	No

Contractor: GETTLER-RYAN INC.

SHELL OIL CORPORATION

QUARTERLY REPORT TO THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

County of ALAMEDA

Date of Report: 04/14/89

Site ID: 204613809 5251 HOPYARD ROAD City of PLEASANTON

Actions in past three months: A WORK PLAN TO EVALUATE THE EXTENT OF CONTAMINATION WAS ISSUED BY WOODWARD-CLYDE CONSULTANTS ON APRIL 7, 1989.

Actions planned for next three months: UPON RECEIPT OF ALL NECESSARY PERMITS AND APPROVALS PROCEED WITH WORK DESCRIBED IN WOODWARD-CLYDE CONSULTANT'S WORK PLAN.

Soil contamination defined? No Soil clean-up in progress? No
Free product plume defined? Yes Free product clean-up in progress? No
Dis'ld const'nt plume defined? No Dis'ld const'nt clean-up in progress? No
Contractor: GETTLER-RYAN INC.

Site ID: UNKNOWN 461 8TH STREET/BROADWAY City of OAKLAND

Actions in past three months: GROUNDWATER SAMPLES WERE COLLECTED ON FEBRUARY 14, 1989. THE RESULTS OF THE QUARTERLY SAMPLING ARE PRESENTED IN A REPORT ISSUED BY GEOSTRATEGIES INC. ON APRIL 14, 1989.

Actions planned for next three months: CONTINUE QUARTERLY GROUNDWATER SAMPLING. FUTURE SCOPES OF WORK WILL BE DEFINED IN A SITE WORK PLAN ISSUED BY GEOSTRATEGIES INC.

Soil contamination defined? No Soil clean-up in progress? No
Free product plume defined? No Free product clean-up in progress? No
Dis'ld const'nt plume defined? No Dis'ld const'nt clean-up in progress? No
Contractor: GETTLER-RYAN INC.

WELL OIL CORPORATION
QUARTERLY REPORT TO THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
County of ALAMEDA Date of Report: 07/14/89

Site ID: 204613809 5251 HOPYARD ROAD City of PLEASANTON

Actions in past three months: FOUR GROUNDWATER MONITORING WELLS WERE
INSTALLED ON MAY 4, 1989. A REPORT PRESENTING THE RESULTS OF THIS
INVESTIGATION IS PENDING. GROUNDWATER SAMPLES WERE COLLECTED ON MAY 11,
1989.

Actions planned for next three months: CONTINUE QUARTERLY GROUNDWATER
SAMPLING. FUTURE SITE WORK WILL BE DEPENDENT ON THE FINDINGS OF THE RECENT
CASE OF INVESTIGATION.

Oil contamination defined? No Soil clean-up in progress? No
Free product plume defined? Yes Free product clean-up in progress? No
Dis'd const'nt plume defined? No Dis'd const'nt clean-up in progress? No
Contractor: GETTLER-RYAN INC.

Site ID: UNKNOWN 461 8TH STREET/BROADWAY City of OAKLAND

Actions in past three months: GROUNDWATER SAMPLES WERE COLLECTED ON MAY 1,
1989. THE RESULTS OF THE QUARTERLY SAMPLING ARE PRESENTED IN A REPORT ISSUED
BY GEOSTRATEGIES INC. ON JULY 13, 1989.

Actions planned for next three months: CONTINUE QUARTERLY GROUNDWATER
SAMPLING. PREPARE A WORK PLAN TO FURTHER EVALUATE THE EXTENT OF
CONTAMINATION.

Oil contamination defined? No Soil clean-up in progress? No
Free product plume defined? No Free product clean-up in progress? No
Dis'd const'nt plume defined? No Dis'd const'nt clean-up in progress? No
Contractor: GETTLER-RYAN INC.

WELL OIL CORPORATION

QUARTERLY REPORT TO THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

County of ALAMEDA

Date of Report: 09/29/88

Site ID: 204802610 32187 ALVARADO-NILES City of UNION CITY

Actions in past three months: SAMPLED MONITORING WELLS IN JUNE 1988.
SAMPLING REPORT FORWARDED TO ACWD ON JULY 14, 1988.

Actions planned for next three months: CONTINUE QUARTERLY WELL SAMPLING.

Oil contamination defined?	Yes	Soil clean-up in progress?	No
Free product plume defined?	Yes	Free product clean-up in progress?	No
Dis'd const'nt plume defined?	Yes	Dis'd const'nt clean-up in progress?	No

Contractor: GETTLER/RYAN INC.

Site ID: 204550849 500 40TH STREET City of OAKLAND

Actions in past three months: NONE. ALL WELLS DESTROYED IN APRIL 1986
RING CONSTRUCTION AT SITE.

Actions planned for next three months: PROCEED WITH WORK PLAN GENERATED BY
PACIFIC ENVIRONMENTAL GROUP INVOLVING THE INSTALLATION OF GROUNDWATER
MONITORING WELLS.

Oil contamination defined?	No	Soil clean-up in progress?	No
Free product plume defined?	No	Free product clean-up in progress?	No
Dis'd const'nt plume defined?	No	Dis'd const'nt clean-up in progress?	No

Contractor: GETTLER-RYAN INC.

Site ID: 204613809 5251 HOPYARD ROAD City of PLEASANTON

Actions in past three months: MONITORED WELLS MONTHLY.

Actions planned for next three months: SAMPLE WELL S-1 QUARTERLY.

Oil contamination defined?	Yes	Soil clean-up in progress?	No
Free product plume defined?	Yes	Free product clean-up in progress?	No
Dis'd const'nt plume defined?	Yes	Dis'd const'nt clean-up in progress?	No

Contractor: GETTLER-RYAN INC.

APPENDIX C
BORING LOGS

PROJECT NO. 27399.00 DATE 1-22-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D Das'ma'chi/L Compton DRILLER Datum


BORING No MW-1
 Sheet 1
 of 2

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev _____ Datum: _____

Drilling method 8" Hollow Stem Auger
 Hole Dia 8"
 Casing Installation Data See Figure 3

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level				DESCRIPTION
						Time				
										8" asphalt and packing materials
		1'								Dark gray clay, moist, no odor
		2'								
		3'								
		4'								
		5'								
		6'								
		7'		CL						
		8'								
		9'								
		10'								
		11'								Light brown clay, plastic, moist, no odor
		12'								
		13'								Light brown clay, silt, free water, no odor
		14'								

PROJECT NO 27399 00 DATE 1-22-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D. Dastmalchi/L Compton DRILLER Datum

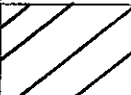
BORING No MW-1
 Sheet 2
 of 2

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev.: _____ Datum _____

Drilling method 8" Hollow Stem Auger
 Hole Dia. 8"
 Casing Installation Data See Figure 3

Blow Counts	PID OVA	O E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level							
						Time							
						Date							
						DESCRIPTION							
				CL									
		15'											Drilling terminated at 15'
		16'											
		17'											
		18'											
		19'											
		20'											
		21'											
		22'											
		23'											
		24'											
		25'											
		26'											
		27'											
		28'											

PROJECT NO 27399 00 DATE 1-22-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin California
 LOGGED BY D Dastmalchi/L Compton DRILLER Datum

BORING No MW-2
 Sheet 1
 of 2

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

Drilling method 8" Hollow Stem Auger
 Hole Dia 8"
 Casing Installation Data See Figure 4

Ground Elev _____ Datum: _____

Blow Counts	PID GVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level					DESCRIPTION	
						Time						
						Date						
												12" asphalt and packing materials
		1'										Dark gray clay with some gravel, damp, low plasticity
		2'										
		3'										Gasoline odor
		4'										
		5'										Dark gray clay, damp, soft, low plasticity
		6'										Gasoline odor
		7'		CL								
		8'										Gasoline odor
		9'										Medium brown clay, silt, damp, low plasticity, trace of pine gravel
		10'										
		11'										
		12'										No gasoline odor
		13'										
		14'										Light brown silty sand, wet, soft

PROJECT NO. 27399.00 DATE 1-22-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D. Dastmalchi/L Compton DRILLER Datum

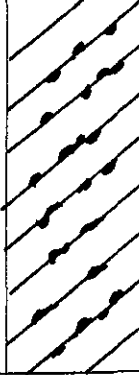
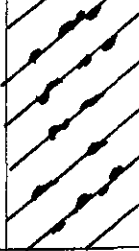
BORING No MW-2
 Sheet 2
 of 2

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev: _____ Datum: _____

Drilling method 8" Hollow Stem Auger
 Hole Dia. 8"
 Casing Installation Data See Figure 4

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level				DESCRIPTION
						Time				
						Date				
		15'		SC						Gasoline odor, free water
		16'		SC						Moist sand at 14' to 16', decreases at 16'
		17'								
		18'								Drilling terminated at 18'
		19'								
		20'								
		21'								
		22'								
		23'								
		24'								
		25'								
		26'								
		27'								
		28'								

PROJECT NO. 27399.00

DATE 1-22-90

BORING No MW-3

LOG OF EXPLORATORY BORING

CLIENT Valley Nissan/Dodge

LOCATION 5787 Scarlett Court, Dublin, California

LOGGED BY D Dastmalchi/L Compton DRILLER Datum

Sheet 1 of 2

Field Location of Boring:

Drilling method 8" Hollow Stem Auger

Ground Elev. Datum:

Hole Dia 8" Casing Installation Data See Figure 5

Blow Counts	PID OVA	DEPTH	SAMPLE	Soil Group Symbol (uses)	Litho-Graphic Symbol	Water Level					DESCRIPTION		
												Time	
												Date	
		1'			CL							8" asphalt and packing materials	
		2'											Dark gray clay with a trace of fine gravel, damp, low plasticity, moderately stiff
		3'											Gravelly sand, dense at 3.5'
		4'											
		5'											
		6'											
		7'											Medium brown silty clay, damp, moderately stiff, low plasticity
		8'											
		9'											
		10'											
		11'											
		12'											
		13'											
		14'											Light brown silty clay, wet

PROJECT NO 27399 00 DATE 1-22-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D Dastmalchi/L. Compton DRILLER Datum


BORING No MW-3
 Sheet 2
 of 2

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev. _____ Datum: _____

Drilling method 8" Hollow Stem Auger
 Hole Dia 8"
 Casing Installation Data See Figure 5

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level					
						Time					
						Date					
						DESCRIPTION					
				CL							
		15'				Drilling terminated at 15'					
		16'									
		17'									
		18'									
		19'									
		20'									
		21'									
		22'									
		23'									
		24'									
		25'									
		26'									
		27'									
		28'									

PROJECT NO 27399.00

DATE 1-23-90

BORING No MW-4

LOG OF
EXPLORATORY BORING

CLIENT Valley Nissan/Dodge

LOCATION 5787 Scarlett Court, Dublin, California

LOGGED BY D. Dastmalch/L. Crompton DRILLER Datum

Sheet 1
of 2

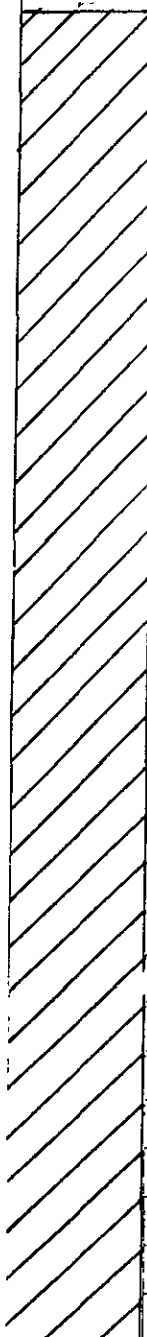
Field Location of Boring: _____

Drilling method 8" Hollow Stem Auger

Hole Dia 8"

Casing Installation Data See Figure 6

Ground Elev _____ Datum: _____

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level			
						Time			
						Date			
DESCRIPTION									
						8" asphalt and packing materials			
		1'				Brown clay mixed with sand, moist, no odor			
		2'							
		3'							
		4'							
		5'							
		6'							
		7'		CL					
		8'				No odor			
		9'							
		10'				Light brown clay with a trace of fine gravel, damp, stiff			
		11'							
		12'							
		13'							
		14'							

PROJECT NO. 27399.00 DATE 1-23-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D. Dastmalchi/L. Compton DRILLER Datum





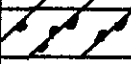
BORING No MW-4
 Sheet 2
 of 2

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev.: _____ Datum: _____

Drilling method 8" Hollow Stem Auger
 Hole Dia. 8"
 Casing Installation Data See Figure 6

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level						
						Time						
						Date						
DESCRIPTION												
		15'		CL								Sample refusal at 15'
		16'		CL								
		17'		CL								Water at 17' initially
		18'		CL								
		19'		SC								Light brown silty sand
		20'										Boring terminated at 19', water at 17' initially
		21'										
		22'										
		23'										
		24'										
		25'										
		26'										
		27'										
		28'										

PROJECT NO 27399 00 DATE 1-22-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D Dastmalchi DRILLER Datum

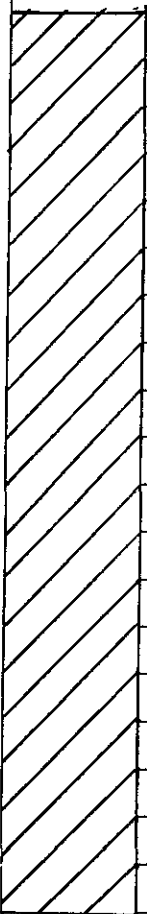
BORING No BH-1
 Sheet 1
 of 1

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev. _____ Datum: _____

Drilling method 6" Hollow Stem Auger
 Hole Dia 6"
 Casing Installation Data N/A

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level				DESCRIPTION		
						Time						
						Date						
										8" asphalt and packing materials		
		1'			CL					Olive green clay, moist, no free water		
		2'										
		3'										Gasoline odor
		4'										
		5'										Dark gray clay, low plasticity, damp, gasoline odor
		6'										
		7'										
		8'										
		9'										No gasoline odor at 9'
		10'										Medium brown silty clay, soft, damp, moderate plasticity
										Boring terminated at 10', no groundwater encountered		
		11'										
		12'										
		13'										
		14'										

CLAYTON ENVIRONMENTAL
CONSULTANTS, INC.

PROJECT NO 27399 00 DATE 1-23-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D Dastmalchi/L Compton DRILLER Datum

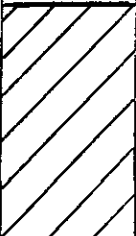
BORING No BH-2
 Sheet 1
 of 1

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

Drilling method 6" Hollow Stem Auger
 Hole Dia 6"
 Casing Installation Data N/A

Ground E'lev. _____ Datum: _____

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uses)	Litho- Graphic Symbol	Water Level				DESCRIPTION
						Time				
						Date				
										8" asphalt and packing materials
		1'		CL						Dark gray to black clay with sand and gravel, moist
		2'								Slight gasoline odor
		3'								Drilling terminated at 3'
		4'								
		5'								
		6'								
		7'								
		8'								
		9'								
		10'								
		11'								
		12'								
		13'								
		14'								

PROJECT NO 27399 00 DATE 1-23-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D Dastmalchi/L Compton DRILLER Datum

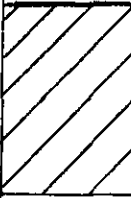
BORING No BH-3
 Sheet 1
 of 1

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev _____ Datum _____

Drilling method 6" Hollow Stem Auger
 Hole Dia. 6"
 Casing Installation Data N/A

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level					DESCRIPTION
						Time					
						Date					
		1'		CL							Dark gray to black clay, slight gasoline odor
		2'									
		3'									Drilling terminated at 2.5'
		4'									
		5'									
		6'									
		7'									
		8'									
		9'									
		10'									
		11'									
		12'									
		13'									
		14'									

CLAYTON ENVIRONMENTAL
CONSULTANTS, INC.

PROJECT NO. 27399.00 DATE 1-23-90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D. Dastmalchi/L. Compton DRILLER Datum



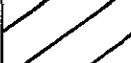




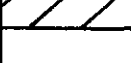


BORING No BH-4
 Sheet 1
 of 1

LOG OF
EXPLORATORY BORING

Field Location of Boring: _____

 Ground Elev.: _____ Datum: _____

Drilling method 6" Hollow Stem Auger
 Hole Dia. 6"
 Casing Installation Data N/A

Blow Counts	PID OVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level				DESCRIPTION
						Time				
						Date				
										8" asphalt and packing materials
		1'								Dark grey clay, moist, no free water
		2'								
		3'								
		4'								
		5'		CL						
		6'								
		7'								
		8'								
		9'								Sandy clay, moist, no odor
		10'								Clay, no sand
										Drilling terminated at 10'
		11'								
		12'								
		13'								
		14'								

LOG OF
EXPLORATORY BORING

PROJECT NO 27399 00 DATE 1-23 90
 CLIENT Valley Nissan/Dodge
 LOCATION 5787 Scarlett Court, Dublin, California
 LOGGED BY D Gastmalch/L Compton DRILLER Datum

BORING No BH 5
 Sheet 1
 of 1

Field Location of Boring: _____

 Ground Elev _____ Datum: _____

Drilling method 6" Hollow Stem Auger
 Hole Dia 6"
 Casing Installation Data N/A

Blow Counts	PID GVA	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- Graphic Symbol	Water Level				DESCRIPTION
						Time				
						Date				
										8" asphalt and packing materials
		1'		CL						Dark gray clay with brown mottling, trace of gravel, damp, low plasticity, firm
		2'								
		3'								
		4'								
		5'								
		6'								
		7'								
		8'								Medium brown clay with a trace of fine gravel, damp, firm, low plasticity
		9'								
		10'								Boring terminated at 10', no groundwater encountered
		11'								
		12'								
		13'								
		14'								

APPENDIX D

LABORATORY RESULTS AND CHAIN-OF-CUSTODY

Clayton Environmental Consultants, Inc.

P.O. Box 9019 • 1252 Quarry Lane • Pleasanton, CA 94566 • (415) 426-2600

February 6, 1990

Mr. Dariush Dastmalchi
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref. No. 27399.00
Work Order No. 9001199
Lab Client Code INT_EEP

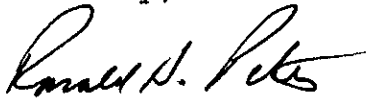
Dear Mr. Dastmalchi:

Attached is our analytical laboratory report for the samples received on January 23, 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
Manager, Laboratory Services
Western Operations

RHP/tb
Attachments

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: BH-1-4	Client: VALLEY NISSAN
Sample Received: 01/23/90	Client Ref. No.: 27399.00
Sample Analyzed: 02/04/90	Lab Client Code: INT_EEP
Sample Matrix: SOIL	Lab No.: 9001199-01A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	200	100
Toluene	108-88-3	ND	100
Ethylbenzene	100-41-4	1,700	100
Xylenes	1330-20-7	400	100
Gasoline	-----	88,000	6000

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: BH-1-9.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-02A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	320	5
Toluene	108-88-3	11	5
Ethylbenzene	100-41-4	140	5
Xylenes	1330-20-7	68	5
Gasoline	-----	3,800	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-1-5.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-03A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	100
Toluene	108-88-3	200	100
Ethylbenzene	100-41-4	2,100	100
Xylenes	1330-20-7	600	100
Gasoline	-----	89,000	6000

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-1-10.5	Client: VALLEY NISSAN
Sample Received: 01/23/90	Client Ref. No.: 27399.00
Sample Analyzed: 02/04/90	Lab Client Code: INT_EEP
Sample Matrix: SOIL	Lab No.: 9001199-04A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	15	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-1-15.5 Client: VALLEY NISSAN
Sample Received: 01/23/90 Client Ref. No.: 27399.00
Sample Analyzed: 02/04/90 Lab Client Code: INT_EEP
Sample Matrix: SOIL Lab No.: 9001199-05A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	ND	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-2-3

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-06A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	700	500
Toluene	108-88-3	2,700	500
Ethylbenzene	100-41-4	1,300	500
Xylenes	1330-20-7	4,600	500
Gasoline	-----	40,000	30000

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-2-9.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-07A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	8,000	5000
Toluene	108-88-3	ND	5000
Ethylbenzene	100-41-4	17,000	5000
Xylenes	1330-20-7	6,000	5000
Gasoline	-----	760,000	300000

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-2-14.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-08A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	220	50
Toluene	108-88-3	100	50
Ethylbenzene	100-41-4	450	50
Xylenes	1330-20-7	400	50
Gasoline	-----	44,000	3000

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-3-4.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-09A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	600	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	8	5
Gasoline	-----	1,400	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-3-9.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-10A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	16	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-3-15	Client: VALLEY NISSAN
Sample Received: 01/23/90	Client Ref. No.: 27399.00
Sample Analyzed: 02/04/90	Lab Client Code: INT_EEP
Sample Matrix: SOIL	Lab No.: 9001199-11A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	25	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-4-5.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-12A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	170	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-4-9.5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-13A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	22	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: BH-4-4

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-14A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	23	5
Toluene	108-88-3	170	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	9	5
Gasoline	-----	2,300	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: BH-4-8.5	Client: VALLEY NISSAN
Sample Received: 01/23/90	Client Ref. No.: 27399.00
Sample Analyzed: 02/04/90	Lab Client Code: INT_EEP
Sample Matrix: SOIL	Lab No.: 9001199-15A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	82	5
Toluene	108-88-3	12	5
Ethylbenzene	100-41-4	290	5
Xylenes	1330-20-7	200	5
Gasoline	-----	8,300	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: BH-5-5

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-16A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	75	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: BH-5-10

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-17A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	64	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: METHOD BLANK

Client: VALLEY NISSAN

Sample Received: 01/23/90

Client Ref. No.: 27399.00

Sample Analyzed: 02/04/90

Lab Client Code: INT_EEP

Sample Matrix: SOIL

Lab No.: 9001199-18A

Compound	CAS #	Concentration ug/kg	Limit of Detection ug/kg
Benzene	71-43-2	ND	5
Toluene	108-88-3	ND	5
Ethylbenzene	100-41-4	ND	5
Xylenes	1330-20-7	ND	5
Gasoline	-----	ND	300

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 1 of 2

Project No. _____

Batch No. **9001193**

Client No. _____

Date Received 1/23/90 By TB

Date Logged In 1/24/90 By TS

Purchase Order No. _____ Client Job No. 27399.00

SEND INVOICE TO Name Valley Nissan/Dodge

Company _____ Dept. _____

Address _____

City, State, Zip _____

REPORT RESULTS TO Name Dariusz Ostrowski Title _____

Company Clayton Dept. EG

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.)
Sample from stacked end

* 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	ANALYSIS REQUESTED										FOR LAB USE ONLY			
BH-1-4	1-22-90	Sand		1	X													01 A
BH-1-9.5				1	X													02
MW-1-5.5				1	X													03
MW-1-10.5				1	X													04
MW-1-15.5				1	X													05
MW-2-3				1	X													06
MW-2-9.5				1	X													07
MW-2-14.5				1	X													08
MW-3-4.5				1	X													09
MW-3-9.5				1	X													10 W

CHAIN OF CUSTODY (if required)

Relinquished by: Dariusz Ostrowski Date/Time 1/23/90/5:00

Relinquished by: _____ Date/Time _____

Method of Shipment: _____

Authorized by: _____ Date _____

(Client Signature Must Accompany Request)

Received by: Cathy M. Smith Date/Time _____

Received at lab by: _____ Date/Time 1/23/90

Sample condition upon receipt: _____

5:10pm

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

Clayton

ENVIRONMENTAL
CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only Page 1 of 2

Project No. _____

Batch No. **9001139**

Client No. _____

Date Received 1/23/90 By TB

Date Logged In 1/24/90 By TS

Purchase Order No. _____		Client Job No. <u>27399.00</u>		REPORT RESULTS TO	Name <u>Dariusz Dastmalchi</u>		Title _____											
SEND INVOICE TO	Name _____		Company _____		Dept. <u>EE</u>													
	Company _____		Address _____		Mailing Address _____													
	Address _____		City, State, Zip _____		City, State, Zip _____													
Date Results Required: _____		Rush Charges Authorized? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Number of Containers	ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added*)													
Special Instructions: (method, limit of detection, phone results, rush results, etc.) <u>Sample from Wacked end.</u>																		
* Explanation of Preservative: _____																		
CLIENT SAMPLE IDENTIFICATION		DATE SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	FOR LAB USE ONLY													
<u>MW-3-15</u>		<u>1-22-90</u>	<u>Sand</u>		<u>1</u>	<u>X</u>												<u>11A</u>
<u>MW-4-5.5</u>		<u>1-23-90</u>			<u>1</u>	<u>X</u>												<u>12</u>
<u>MW-4-9.5</u>					<u>1</u>	<u>X</u>												<u>13</u>
<u>BH-4-4</u>					<u>1</u>	<u>X</u>												<u>14</u>
<u>BH-4-8.5</u>					<u>1</u>	<u>X</u>												<u>15</u>
<u>BH-5-5</u>					<u>1</u>	<u>X</u>												<u>16</u>
<u>BH-5-10</u>					<u>1</u>	<u>X</u>												<u>17</u>
CHAIN OF CUSTODY (if required)		Relinquished by: <u>Dariusz Dastmalchi</u>		Date/Time: <u>1/23/90/5PM</u>		Received by: <u>[Signature]</u>		Date/Time: _____										
		Relinquished by: _____		Date/Time: _____		Received at lab by: <u>[Signature]</u>		Date/Time: <u>1/23/90</u>										
		Method of Shipment: _____				Sample condition upon receipt: _____		<u>5:10 PM</u>										
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

Clayton Environmental Consultants, Inc.

P.O. Box 9019 • 1252 Quarry Lane • Pleasanton, CA 94566 • (415) 426-2600

January 31, 1990

Mr. Dariush Dastmalchi
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Ref. No. 26389.00
Work Order No. 9001223
Lab Client Code INT_EEP

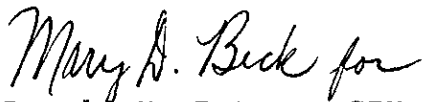
Dear Mr. Dastmalchi:

Attached is our analytical laboratory report for the samples received on January 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 Representative, at (415) 426-2657.

Sincerely,



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

RHP/tb
Attachments

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-1

Client: VALLEY NISSAN

Sample Received: 01/26/90

Client Ref. No.: 26389.00

Sample Analyzed: 01/30/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9001223-01A

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	1.0	0.3
Xylenes	1330-20-7	1.0	0.4
Gasoline	-----	80	50

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-2

Client: VALLEY NISSAN

Sample Received: 01/26/90

Client Ref. No.: 26389.00

Sample Analyzed: 01/30/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9001223-02A

Compound	CAS #	Concentration ug/L	Limit of Detection ug/L
Benzene	71-43-2	3,900	4
Toluene	108-88-3	14	3
Ethylbenzene	100-41-4	540	3
Xylenes	1330-20-7	540	4
Gasoline	-----	8,300	500

ND = Not detected at or above limit of detection

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-3

Client: VALLEY NISSAN

Sample Received: 01/26/90

Client Ref. No.: 26389.00

Sample Analyzed: 01/30/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9001223-03A

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

EPA METHOD 8015/8020
GASOLINE/BTEX

Sample I.D.: MW-4	Client: VALLEY NISSAN
Sample Received: 01/26/90	Client Ref. No.: 26389.00
Sample Analyzed: 01/30/90	Lab Client Code: INT_EEP
Sample Matrix: WATER	Lab No.: 9001223-04A

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.: METHOD BLANK

Client: VALLEY NISSAN

Sample Received: 01/26/90

Client Ref. No.: 26389.00

Sample Analyzed: 01/30/90

Lab Client Code: INT_EEP

Sample Matrix: WATER

Lab No.: 9001223-06A

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

Clayton

ENVIRONMENTAL
CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

VALLEY NISSAN

For Clayton Use Only Page 1 of 1
 Project No. 900/223
 Batch No. _____
 Client No. _____
 Date Received 1/26/90 By [Signature]
 Date Logged In [Initials] By [Initials]

Purchase Order No. _____ Client Job No. 212389.00
 Name Dariusz Dastmalchi
 Company Clayton Dept. EE
 Address _____
 City, State, Zip _____

REPORT RESULTS TO Name Dariusz Dastmalchi Title _____
 Company _____ 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: Results by 2/5/90 2/9/90 25 ppb
P₃ Hcl MW-2 could be high Dariusz 1/29/90

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	ANALYSIS REQUESTED										FOR LAB USE ONLY				
MW-1	1/26/90	water	840ml	2	PX														01 A, B
MW-2	↓	↓	↓	2	PX														02 ↓
MW-3	↓	↓	↓	2	PX														03 ↓
MW-4	↓	↓	↓	2	PX														04 ↓
Trip Blank (051889)	↓	↓	↓	1	X	X													05 A

TPH-G/BTEX Haled

CHAIN OF CUSTODY (if required)
 Relinquished by: Dariusz Dastmalchi Date/Time 1/26/90 2:30
 Relinquished by: _____ Date/Time _____
 Method of Shipment: _____
 Authorized by: _____ Date _____
 (Client Signature Must Accompany Request)

Received by: _____ Date/Time _____
 Received at lab by: [Signature] Date/Time 1/26/90 2:30 PM
 Sample condition upon receipt: (05A) LARGE HANDSPACE T.B.
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

APPENDIX E
WATER SAMPLING SURVEY FORMS

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 27399.00 Site: Valley Nissan/Dodge Date: 1-26-90

Well # MW-1 Sampling Team: D. Dastmalchi

Sampling Method: Purge with electric pump sample with teflon bailer

Field Conditions: Sunny and mild

Describe Equipment D-Con Before Sampling This Well: TSP wash and rinse with dionized water

Total Depth of Well: 15-25 feet Time: 10:00 Depth to Water Before Pumping: 4.85 feet

Volume Height of Water Column:	feet *	Diameter		Volume	gal *	Purge Factor	To Purge
		2-inch	4-inch				
<u>10.04</u>	*	<u>.16</u>	<u>.65</u>	= <u>6.76</u>	*	<u>4</u>	= <u>27.1</u>

Depth Purging From: _____ feet Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes
<u>12:05</u>	<u>10</u>	<u>7.0</u>	<u>7,800</u>	<u>19</u>	<u>Clear</u>
<u>12:15</u>	<u>15</u>	<u>7.0</u>	<u>7,800</u>	<u>19</u>	<u>Clear, pumped dry</u>
<u>12:30</u>	<u>20</u>	<u>7.0</u>	<u>7,800</u>	<u>19</u>	<u>Clear</u>
<u>1:05</u>	<u>25</u>	<u>7.0</u>	<u>7,800</u>	<u>19</u>	<u>Clear</u>
<u>1:15</u>	<u>30</u>	<u>7.0</u>	<u>7,800</u>	<u>19</u>	<u>Clear</u>

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(CONTINUED)

Time Field Parameter Measurement Begins: 1:17

	<u>Rep #1</u>	<u>Rep #2</u>	<u>Rep #3</u>	<u>Rep #4</u>
pH	<u>6.8</u>	<u>7.0</u>	<u>7.0</u>	<u>7.0</u>
Conductivity	<u>7800</u>	<u>7800</u>	<u>7800</u>	<u>7800</u>
T°C	<u>19</u>	<u>19</u>	<u>19</u>	<u>19</u>

Pre-Sample Collection Gallons Purged: 30

Time Sample Collection Begins: 1:17

Time Sample Collection Ends: 1:20

Total Gallons Purged: 31

Comments: _____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 27399.00 Site: Valley Nissan/Dodge Date: 1-26-90

Well # MW-2 Sampling Team: D. Dastmalchi

Sampling Method: Purge with electric pump sample with teflon bailer

Field Conditions: Sunny and mild

Describe Equipment D-Con Before Sampling This Well: TSP wash and rinse with dionized water

Total Depth of Well: 16.55 feet Time: 9.43 Depth to Water Before Pumping: 4.65 feet

Volume Height of Water Column:	feet	Diameter		Volume	gal	Purge Factor	To Purge
		2-inch	4-inch				
<u>11.96</u>	*	<u>.16</u>	<u>.65</u>	= <u>7.74</u>	*	<u>4</u>	= <u>31.0</u>

Depth Purging From: _____ feet Time Surging Begins: 10:20

Notes on Initial Discharge: Slight gasoline odor, muddy, turbid

Time	Volume Purged	pH	Conductivity	T	Notes
<u>10:20</u>	<u>10</u>	<u>6.8</u>	<u>11,200</u>	<u>19</u>	<u>Clear</u>
<u>10:25</u>	<u>20</u>	<u>6.8</u>	<u>11,500</u>	<u>19</u>	<u>Clear</u>
<u>10:40</u>	<u>25</u>	<u>6.8</u>	<u>4,300</u>	<u>19</u>	<u>Clear, pumped dry</u>
<u>11:05</u>	<u>30</u>	<u>6.8</u>	<u>4,300</u>	<u>19</u>	<u>Clear, pumped dry</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(CONTINUED)

Time Field Parameter Measurement Begins: 12:45

	<u>Rep #1</u>	<u>Rep #2</u>	<u>Rep #3</u>	<u>Rep #4</u>
pH	<u>6.8</u>	<u>6.8</u>	<u>6.8</u>	<u>6.8</u>
Conductivity	<u>4,200</u>	<u>4,200</u>	<u>4,200</u>	<u>4,200</u>
T°C	<u>19</u>	<u>19</u>	<u>19</u>	<u>19</u>

Pre-Sample Collection Gallons Purged: 30

Time Sample Collection Begins: 12:45

Time Sample Collection Ends: 12:50

Total Gallons Purged: 31

Comments: _____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 27399.00 Site: Valley Nissan/Dodge Date: 1-26-90

Well # MW-3 Sampling Team: D. Dastmalchi

Sampling Method: Purge with electric pump sample with teflon bailer

Field Conditions: Sunny and mild

Describe Equipment D-Con Before Sampling This Well: TSP wash and rinse with dionized water

Total Depth of Well: 14.10 feet Time: 9:30 Depth to Water Before Pumping: 4.55 feet

Volume Height of Water Column:	Diameter		Volume	Purge Factor	To Purge
	2-inch	4-inch			
<u>9.55</u> feet *	<u>.16</u>	<u>.65</u>	= <u>6.21</u> gal *	<u>5</u>	= <u>31.03</u>

Depth Purging From: _____ feet Time Surging Begins: 10:35

Notes on Initial Discharge: Turbid

Time	Volume Purged	pH	Conductivity	T	Notes
<u>10:40</u>	<u>10</u>	<u>7.0</u>	<u>3,800</u>	<u>19</u>	<u>Turbid, pumped dry</u>
<u>10:55</u>	<u>15</u>	<u>7.2</u>	<u>3,200</u>	<u>19</u>	<u>Clear</u>
<u>10:57</u>	<u>20</u>	<u>7.2</u>	<u>3,200</u>	<u>19</u>	<u>Clear</u>
<u>11:02</u>	<u>25</u>	<u>7.2</u>	<u>3,200</u>	<u>19</u>	<u>Clear, pumped dry</u>
<u>11:15</u>	<u>30</u>	<u>7.4</u>	<u>3,200</u>	<u>19</u>	<u>Clear</u>
<u>11:25</u>	<u>35</u>	<u>7.2</u>	<u>3,200</u>	<u>19</u>	<u>Clear</u>

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(CONTINUED)

Time Field Parameter Measurement Begins: 12:25

	<u>Rep #1</u>	<u>Rep #2</u>	<u>Rep #3</u>	<u>Rep #4</u>
pH	<u>7.2</u>	<u>7.2</u>	<u>7.2</u>	<u>7.2</u>
Conductivity	<u>3,200</u>	<u>3,200</u>	<u>3,200</u>	<u>3,200</u>
T°C	<u>19</u>	<u>19</u>	<u>19</u>	<u>19</u>

Pre-Sample Collection Gallons Purged: 35

Time Sample Collection Begins: 12:25

Time Sample Collection Ends: 12:30

Total Gallons Purged: 36

Comments: _____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 27399.00 Site: Valley Nissan/Dodge Date: 1-26-90

Well # MW-4 Sampling Team: D. Dastmalchi

Sampling Method: Purge with electric pump sample with teflon bailer

Field Conditions: Sunny and mild

Describe Equipment D-Con Before Sampling This Well: TSP wash and rinse with dionized water

Total Depth of Well: 19.35 feet Time: 9:40 Depth to Water Before Pumping: 4.35 feet

Volume Height of Water Column:	feet *	Diameter		Volume	gal *	Purge Factor	To Purge
		2-inch	4-inch				
<u>15</u>		<u>.16</u>	<u>.65</u>	<u>= 9.75</u>		<u>5</u>	<u>= 48.75</u>

Depth Purging From: _____ feet Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes
<u>11:35</u>	<u>10</u>	<u>7.2</u>	<u>4,400</u>	<u>19</u>	<u>Clear</u>
<u>11:37</u>	<u>20</u>	<u>6.4</u>	<u>4,600</u>	<u>19</u>	<u>Clear</u>
<u>11:40</u>	<u>30</u>	<u>7.2</u>	<u>4,400</u>	<u>19</u>	<u>Clear</u>
<u>11:45</u>	<u>40</u>	<u>7.2</u>	<u>4,400</u>	<u>19</u>	<u>Clear</u>
<u>11:50</u>	<u>50</u>	<u>7.2</u>	<u>4,400</u>	<u>19</u>	<u>Clear</u>
_____	_____	_____	_____	_____	_____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(CONTINUED)

Time Field Parameter Measurement Begins: 11:52

	<u>Rep #1</u>	<u>Rep #2</u>	<u>Rep #3</u>	<u>Rep #4</u>
pH	<u>7.0</u>	<u>7.0</u>	<u>7.0</u>	<u>7.0</u>
Conductivity	<u>4,600</u>	<u>4,400</u>	<u>4,400</u>	<u>4,400</u>
T°C	<u>19</u>	<u>19</u>	<u>19</u>	<u>19</u>

Pre-Sample Collection Gallons Purged: 50

Time Sample Collection Begins: 1:52

Time Sample Collection Ends: 12:00

Total Gallons Purged: 51

Comments: _____

