

June 4, 1996

7-282

Ms. Amy Leech
Alameda County Department of Environmental Health
1131 Harborbay Parkway
Alameda, CA 94502

Re: Well Destruction Report for Tharco, 2222 Grant Avenue, San Lorenzo, CA

Dear Ms. Leech:

Under permit number 96381 issued by the Alameda Flood Control and Water Conservation District, Zone 7, a total of three monitoring wells (MW-1, MW-2 and MW-3) were destroyed on May 31, 1996 at the above-referenced site. A Site Location Map (Figure 1) and a Site Plan (Figure 2), showing the well locations, are included. Copies of the State of California, Well Completion Reports are also included.

Each well was destroyed by tremie piping grout/bentonite mixture through the well casing from total depth to the surface. An air line was secured to the well head and compressed air at a pressure of 15 pound per square inch (psi) was applied to each well head for approximately five minutes. The water and the grout/bentonite mixture in the well were forced through the well screen and into the void space surrounding the well. The cement/bentonite grout mixture stabilized in the casing at approximately two feet below ground surface (bgs). The casing and well seal were jack hammered out to two feet bgs and the well cover was removed. A mushroom cap of grout was applied to the top of the well. Upon completion, the work area was restored with a concrete patch to grade.

If you have any questions or require additional information, please feel free to call me at (510) 521-2684.

Sincerely,
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

FRANCES MARONI

Frances Maroni
Project Engineer

enclosures

cc: Mr. Jim Burress, Tharco
Mr. Craig Mayfield, Zone 7



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 2222 GRANT AVE
SAN LORENZO, CA 94580

PERMIT NUMBER 96381
LOCATION NUMBER 3S/3W 13E80 to 13E82

CLIENT

Name THARCO
Address 2222 GRANT AVE Phone _____
City SAN LORENZO Zip 94580-8000

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT

Name HYDRO-ENVIRONMENTAL TECH
Address 2394 MARINER SQ Phone 521-2684
City ALAMEDA Zip 94501

TYPE OF PROJECT

Well Construction	Geotechnical Investigation
Cathodic Protection <u>---</u>	General <u>---</u>
Water Supply <u>---</u>	Contamination <u>---</u>
Monitoring <u>---</u>	Well Destruction <u>X</u>

PROPOSED WATER SUPPLY WELL USE

Domestic --- Industrial --- Other N/A
Municipal --- Irrigation ---

DRILLING METHOD:

Mud Rotary --- Air Rotary --- Auger ---
Cable --- Other HIGH PRESSURE GROUT

DRILLER'S LICENSE NO.

DESTRUCTION WELL PROJECTS

Drill Hole Diameter	<u>8</u> in.	Maximum	
Casing Diameter	<u>2</u> in.	Depth	<u>19</u> ft.
Surface Seal Depth	<u>4-35</u> ft.	Number	<u>3</u>

GEOTECHNICAL PROJECTS

Number of Borings		Maximum	
Hole Diameter	<u>---</u> in.	Depth	<u>---</u> ft.

ESTIMATED STARTING DATE 5-28-96
ESTIMATED COMPLETION DATE 5-31-96

A. GENERAL

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

B. WATER WELLS, INCLUDING PIEZOMETERS

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

C. GEOTECHNICAL

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

D. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION

See attached.

Approved Wyman Hong Date 24 May 96

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

APPLICANT'S

24 May 1996

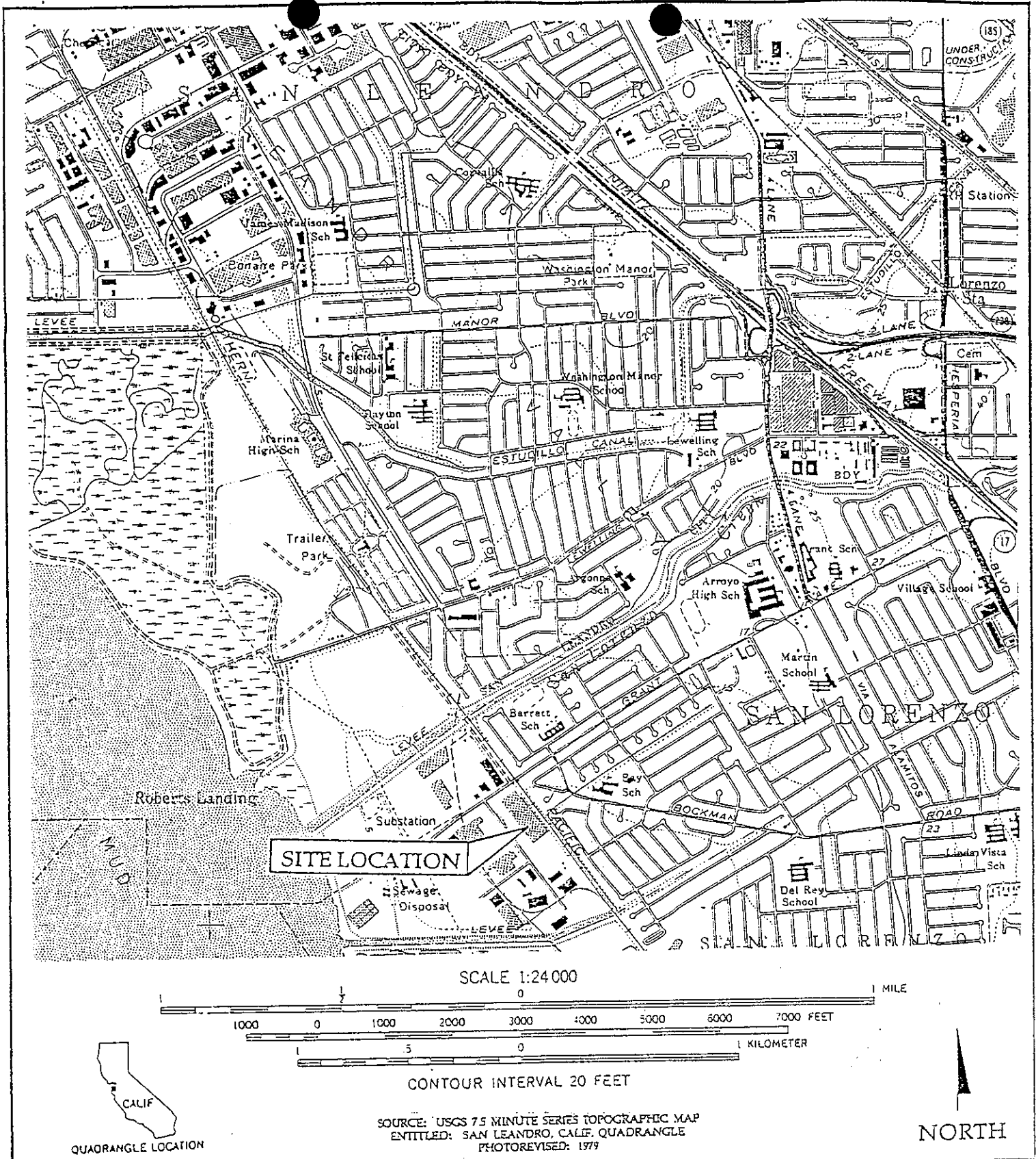
ZONE 7
WATER RESOURCES ENGINEERING
GROUNDWATER PROTECTION ORDINANCE

THARCO
2222 GRANT AVENUE
SAN LORENZO
WELLS 3S/3W 13E80 TO 13E82
PERMIT 96381

Destruction Requirements:

1. Clean out all bridged or poorly compacted materials to the bottom of the well.
2. Pressure grout the casing to 2 feet below finished grade or original ground, whichever is the lower elevation.
3. Remove casing, seal and gravel pack to 2 feet below finished grade or original ground, whichever is the lower elevation.
4. After the seal has set, backfill the remaining hole with compacted material.

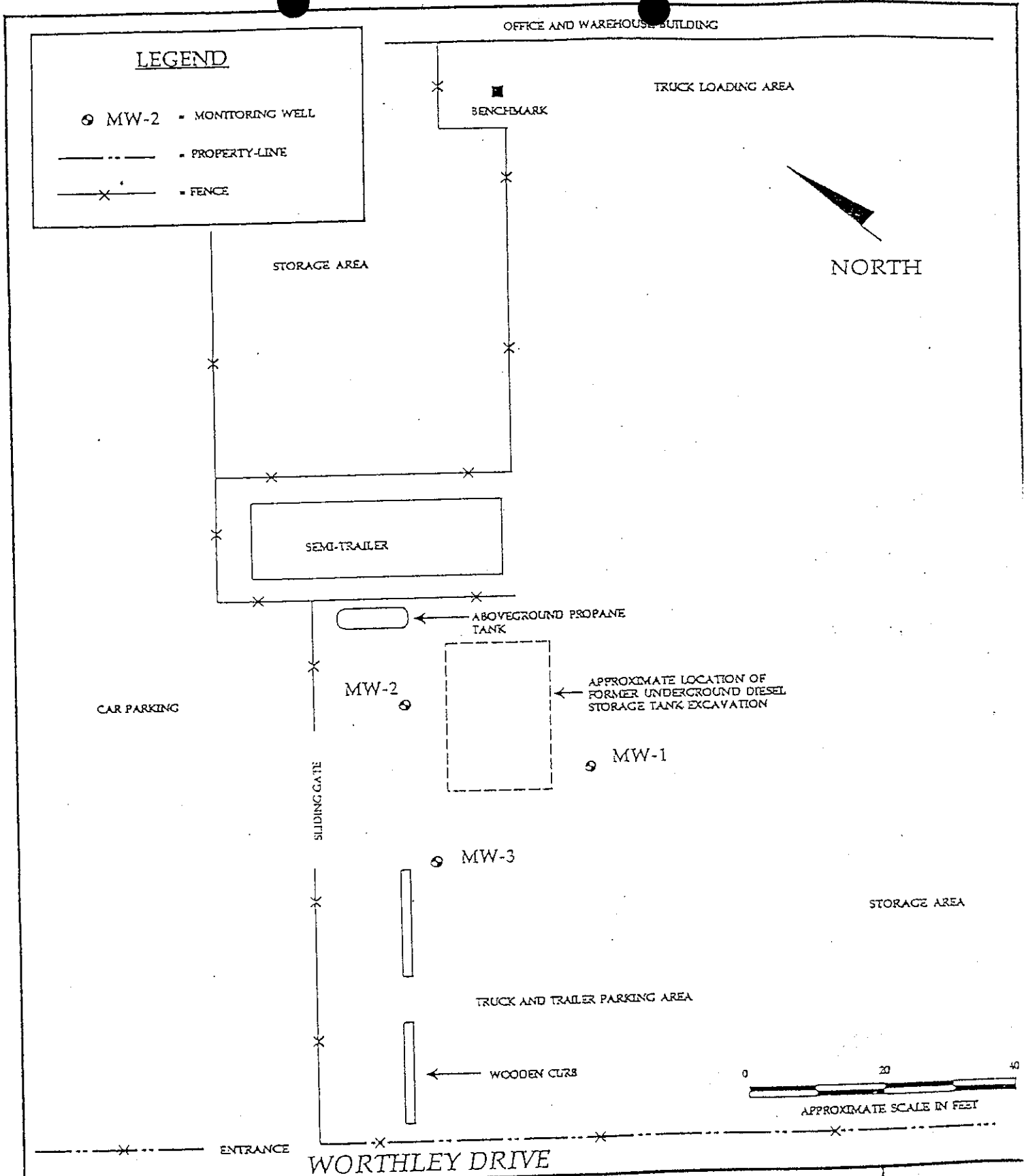
These destruction requirements as proposed by Fran Morani of Hydro-Environmental Technologies meet or exceed Zone 7 minimum requirements.



HYDR -
 ENVIR NMENTAL
 TECHN A LOGIES, INC.

SITE LOCATION MAP
 Tharco
 2222 Grant Avenue
 San Lorenzo, California

Figure
 1
 7-282 3/94



HYDR -
 ENVIR NMENTAL
 TECHN LOGIES, INC.

SITE PLAN
 Tharco Corporation
 2222 Grant Avenue
 San Lorenzo, California

Figure
 2
 7-282 1/95

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

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

REMOVED