

Noted E. P. SO.

OCT 1 1992

3315 Almaden Expressway, Suite 34
 San Jose, CA 95118
 Phone: (408) 264-7723
 Fax: (408) 264-2435

T R A N S M I T T A L

CALIF. REG. WATER
 OCT 0 2 1992
 QLT. CONTROL BOARD

TO: Ms. M. Sunnarborg
 City of Livermore
 Public Works Department
 3589 Pacific Avenue
 Livermore, California 94550

DATE: September 29, 1992
 PROJECT NUMBER: 60000.09
 SUBJECT: ARCO Station 771, 899 Rincon
 Avenue, Livermore, California.

01-0121

FROM: Barbara Sieminski
 TITLE: Asst. Project Geologist

WE ARE SENDING YOU:

COPIES	DATED	NO.	DESCRIPTION
1	9/29/92	60000.09	Street Encroachment Permit to Install Three Monitoring Wells and Conduct Offsite Subsurface Environmental Investigation at ARCO Station 771, located at 899 Rincon Avenue, Livermore, California.

THESE ARE TRANSMITTED as checked below:

- | | | |
|--|---|---|
| <input type="checkbox"/> For review and comment | <input type="checkbox"/> Approved as submitted | <input type="checkbox"/> Resubmit ___ copies for approval |
| <input checked="" type="checkbox"/> As requested | <input type="checkbox"/> Approved as noted | <input type="checkbox"/> Submit ___ copies for distribution |
| <input type="checkbox"/> For approval | <input type="checkbox"/> Return for corrections | <input type="checkbox"/> Return ___ corrected prints |
| <input type="checkbox"/> For your files | | |

REMARKS:

cc: Michael Whelan, ARCO Products Company
 Chris Winsor, ARCO Products Company
 Susan Hugo, ACHCSA
 Eddy So, RWQCB
 Dannielle Stefani, Livermore Fire Department

Copies: 1 to RESNA project file no.



A RESNA Company

RESNA

Working To Restore Nature

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
Fax: (408) 264-2435

September 29, 1992
0922msun
60000.09

Ms. M. Sunnarborg
City of Livermore
Public Works Department
3589 Pacific Avenue
Livermore, California 94550

COPY

Subject: Street Encroachment Permit to Install Three Monitoring Wells and Conduct Offsite Subsurface Environmental Investigation at ARCO Station 771, located at 899 Rincon Avenue, Livermore, California.

Dear Ms. Sunnarborg;

On behalf of ARCO Products Company (ARCO), RESNA Industries Inc. (RESNA) is requesting a street encroachment permit to install and monitor three groundwater monitoring wells (MW-8 through MW-10) on the street adjacent to the property located at 899 Rincon Avenue in Livermore, California (Plate 1) as part of an ongoing offsite subsurface environmental investigation. The proposed groundwater monitoring wells will be installed in the street area as shown on Plate 2. After initial installation of the wells, they will be monitored on a quarterly basis to determine changes in groundwater levels, and for sampling to determine presence of any groundwater contamination.

Description of Work

Three soil borings (B-12 through B-14) will be drilled using 10-inch-diameter hollow-stem auger to the depth of approximately 45 feet below ground surface. The monitoring wells (MW-8 through MW-10) will be constructed in the borings using clean 2-inch-diameter, thread-jointed, Schedule 40 polyvinyl chloride (PVC) casing. No chemical cements, glues, or solvents will be used in well construction. Each casing bottom will be sealed with a threaded end-plug, and each casing top with a locking plug. The screened portions of the wells will be constructed of machine-slotted PVC casing with 0.020-inch-wide (typical) slots. The screened sections in each groundwater monitoring well will be placed to allow monitoring during seasonal fluctuations of groundwater levels. The annular space of each well will be backfilled with No. 3 sand, to approximately two feet above the top of the

Street Encroachment Permit Request
ARCO Station 771, Livermore, California

September 29, 1992
60000.09

screened casing. A 1- to 2-foot-thick bentonite plug will be placed above the sand as a seal against cement entering the filter pack. The remaining annulus will be then backfilled with a slurry of water, neat cement, and bentonite to approximately one foot below the ground surface. An aluminum utility box with a PVC apron will be placed over each wellhead and set in concrete placed flush with the surrounding ground surface. Each wellhead cover will have a seal to protect the monitoring well against surface-water infiltration and requires a special wrench to open. The design discourages vandalism and reduces the possibility of accidental disturbance of the well. Typical monitoring well construction is shown on Plate 3.

The proposed monitoring wells will be an important source of information concerning soils and groundwater in the immediate area of ARCO Station 771 located at 899 Rincon Avenue in Livermore, California. The installation and maintenance of the wells will remain the responsibility of ARCO. A well construction permit will be acquired from Alameda County Flood Control and Water Conservation District (ACFCWCD) prior to drilling, and an underground utility line locating company will be contracted to locate underground utilities.

If you have any questions regarding this request, please call us at (408) 264-7723.

Sincerely,
RESNA Industries Inc.
COPY
Barbara Sieminski
Assistant Project Geologist

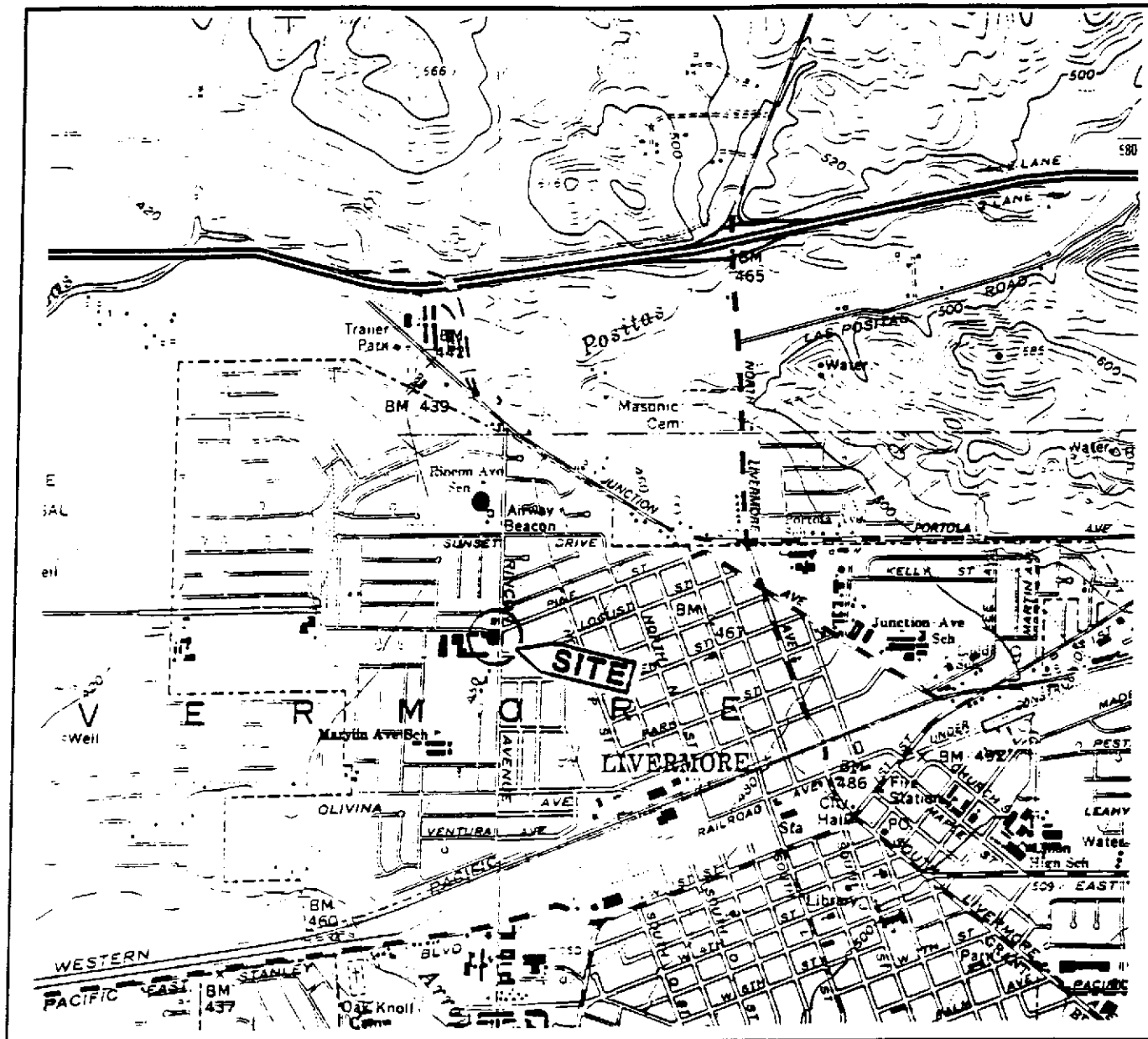
COPY
Joel Coffman
Project Geologist

Street Encroachment Permit Request
ARCO Station 771, Livermore, California

September 29, 1992
60000.09

Enclosures: Plate 1, Site Vicinity Map (five copies)
 Plate 2, Proposed Boring/Monitoring Well Locations
 Plate 3, Typical Monitoring Well Construction
 City of Livermore, Street Encroachment Permit Application
 Check No. 799, dated 9/28/92 for \$100.00 (Permit Fee)

cc: Michael Whelan, ARCO Products Company
 Chris Winsor, ARCO Products Company
 Susan Hugo, Alameda County Health Care Services Agency
 Eddy So, Regional Water Quality Control Board
 Dannielle Stefani, Livermore Fire Department



Base: U.S. Geological Survey
 7.5-Minute Quadrangle
 Livermore, California
 Photorevised 1980

LEGEND

○ = Site Location



Approximate Scale



RESNA

PROJECT 60000.09

**SITE VICINITY MAP
 ARCO Station 771
 899 Rincon Avenue
 Livermore, California**

PLATE

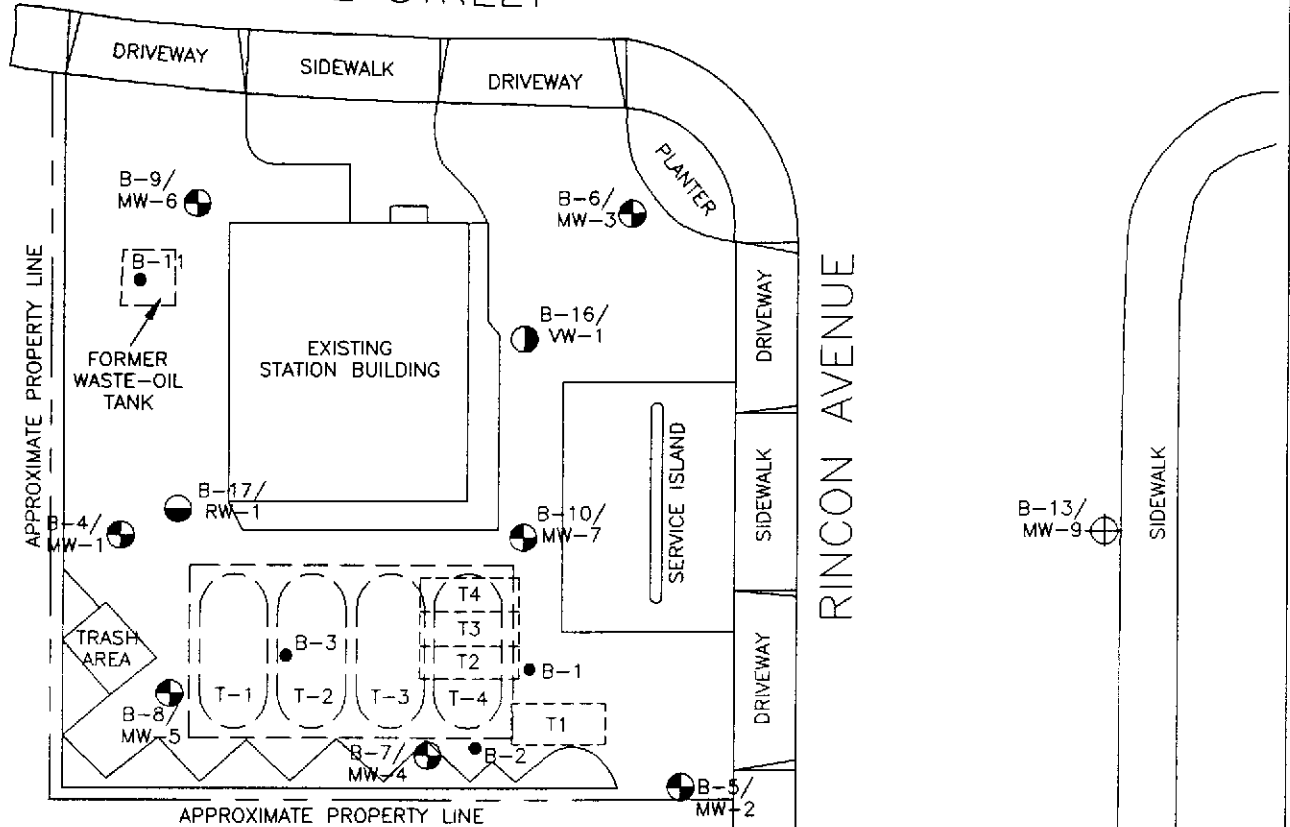
1

B-15/
MW-11

SIDEWALK

B-12/
MW-8

PINE STREET



EXPLANATION

- B-14/
MW-10 ⊕ = Proposed boring/monitoring well
- B-11 ● = Soil boring
(RESNA, February 1990 and July 1991)
- B-15/
MW-11 ⊕ = Monitoring well
(RESNA, 1991 and 1992)
- B-17/
RW-1 ⊕ = Recovery well
(RESNA, April 1992)
- B-16/
VW-1 ⊕ = Vapor extraction well
(RESNA, April 1992)
- (T-4) = Existing underground gasoline-storage tank
- [T-4] = Former underground gasoline-storage tank

Approximate Scale



B-14/
MW-10

Source: Surveyed by John Koch, Licensed Land Surveyor.

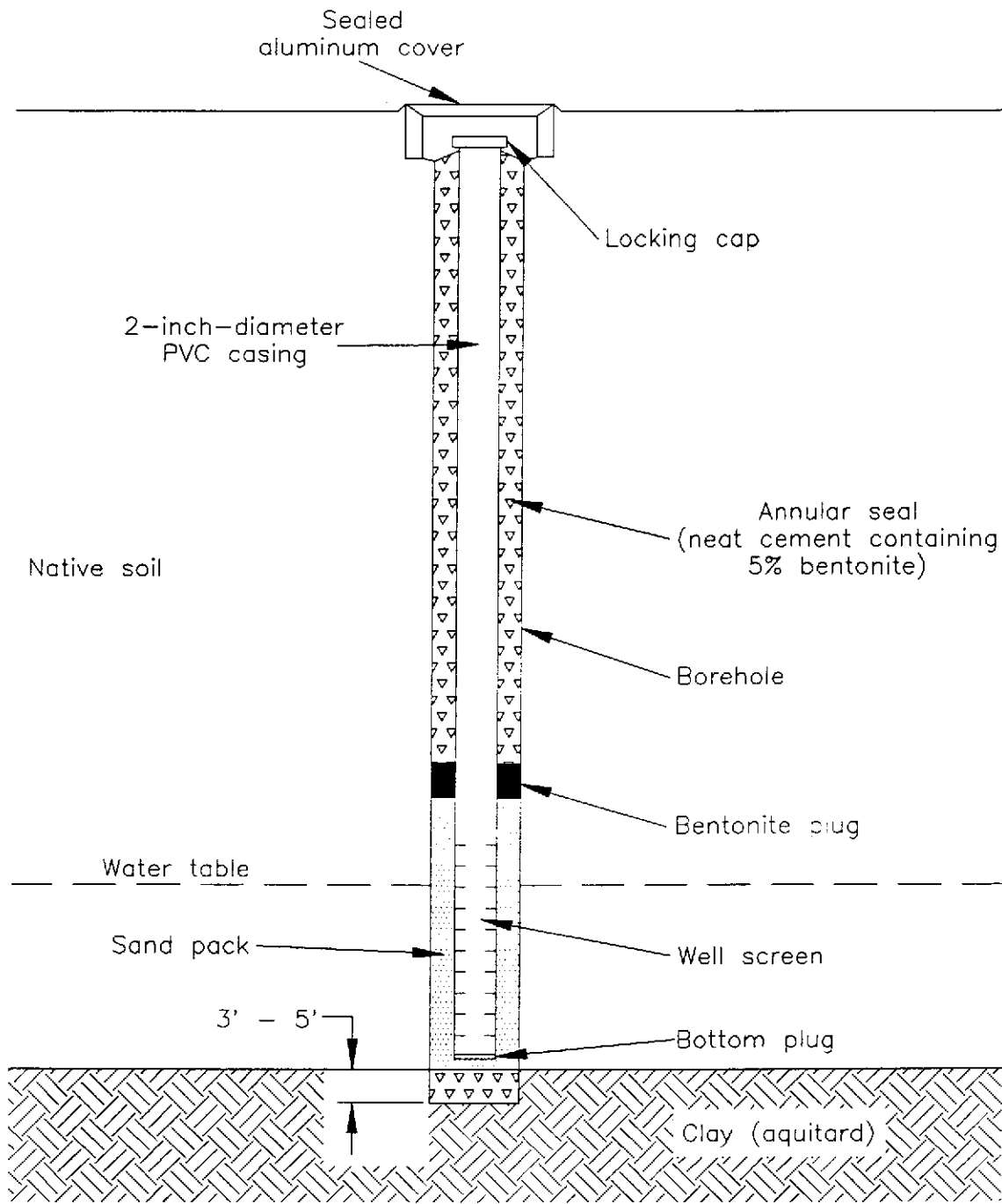
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**PROPOSED BORING/
MONITORING WELL LOCATIONS**
ARCO Station 771
899 Rincon Avenue
Livermore, California

PLATE
2

PROJECT 60000.09

GROUNDWATER MONITORING WELL



Not to scale

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PROJECT 60000.09

TYPICAL
MONITORING WELL CONSTRUCTION
ARCO Station 771
899 Rincon Avenue
Livermore, California

PLATE

3

CITY OF LIVERMORE
Public Works Department

STREET ENCROACHMENT PERMIT APPLICATION

PERMIT TO DO WORK IN ACCORDANCE WITH CHAPTER 12.08 OF THE LIVERMORE MUNICIPAL CODE AND SPECIFICATIONS AS ADOPTED BY THE CITY OF LIVERMORE AND ANY SPECIAL REQUIREMENTS SHOWN OR LISTED HEREIN.

Applicant/Permittee: for ARCO Permit No.: _____
Name: RESNA Industries Receipt No.: _____
Address: 3315 Almaden Exp, Suite 34 Fee: \$ _____
San Jose, CA 95118 Bond: \$ _____
Phone: (408) 264-7723

PLEASE READ THIS PERMIT CAREFULLY. KEEP IT AT THE WORK SITE. TO ARRANGE FOR INSPECTION, PHONE 373-5240 AT LEAST 24 HOURS BEFORE YOU START WORK.

JOB LOCATION immediate vicinity of ARCO Station 771, 899 Rincon Ave, Livermore, CA (Plate 2)

DESCRIPTION OF WORK:

Three 10-inch-diameter soil borings will be drilled and three 2-inch-diameter groundwater monitoring wells (MW-8 through MW-10) installed in the borings (Plate 3). After initial installation of the wells, they will be monitored on a quarterly basis to determine changes in groundwater levels, and for sampling to determine presence of any groundwater contamination. The wells will be an important source of information concerning soil and groundwater in the immediate area of ARCO 771.

Length of Excavation N/A l.f. Width 10" l.f. Depth 45' ft.

ATTENTION IS DIRECTED TO THE GENERAL PROVISIONS PRINTED ON THE REVERSE SIDE OF THIS PERMIT AND TO THE FOLLOWING SPECIAL REQUIREMENTS (to be filled in by Engineering Division):

Prosecution of Work: All work authorized by the permit shall be performed in a workmanlike, diligent, and expeditious manner, and must be completed to the satisfaction of the Director of Public Works.

Liability and Damages: The permittee shall be responsible for all liability imposed by law for personal injury or property damage which may arise out of the work permitted and done by permittee under this permit, or which may arise out of the failure on the part of the permittee to perform his obligations under said permit in respect to maintenance and encroachment. The permittee shall protect and indemnify the City of Livermore, its officers and employees, and save them harmless in every way from all action at law for damage or injury to persons or property that may arise out of or be occasioned in any way because of his operations as provided in this permit.

Signature of Permittee for RESNA City Engineer
By: Joel G. [Signature] By: _____
Date: 9-28-92 Date of Issue: _____

Work Completed: _____

Inspector: _____