JPLF4--20.DWG

Jet Propulsion Laboratory

MW-7 0.8
MW-16 1.3
MW-11 1: --
MW-1 --
MW-15 --
MW-24 Not Installed
MW-9 --
MW-6 --
MW-8 --
MW-12 1: --
MW-22 Not Installed
MW-13 0.6
MW-14 1: --
MW-3 1: --
MH-01
MW-18 1: -- 2: --
MW-2
MW-23 Not Installed
MW-4 1: --
MW-10 0.5
MW-5 --
MW-17 --
MW-21 1: 0.7
MW-19 1: --
MW-20 1: --

La Canada Irrigation District Wells
Well #1: 0.6 *3/97
Well #6: Not in Service

Valley Water Company Wells
Well #3: 1.8 *8/96
Well #2: 8.5 *9/96
Well #4: 16.2 *8/96
Well #1: 52.5 *8/96

City of Pasadena Arroyo Well N/A
City of Pasadena Well 52 N/A
City of Pasadena Ventura Well N/A
City of Pasadena Windsor Well N/A
Lincoln Ave. Water Co. Well #3 N/A
Lincoln Ave. Water Co. Well #5 N/A
Las Flores Water Co. Well #2 -- *12/96
Rubio Cañon Land and Water Co. Wells
Well #4: -- *12/94
Well #7: -- *12/94

Oak Grove Ranger Station
Oak Grove Park
Devil's Gate Reservoir
Spreading Grounds

GOULD AVE
HAMPTON RD
CROWN
VIRO RD
OAK GROVE DR
FOOTHILL FWY
ALTADENA DR
LINCOLN AVE
HARRIET ST
MARIPOSA DR
CASITAS AVE
VENTURA ST
WINDSOR AVE
FIGUEROA
CROSBY STREET

Explanation

- JPL Shallow Monitoring Wells
- JPL Deep Multi-Port Monitoring Wells
- Municipal Production Wells
- City of Pasadena Monitoring Well
- 1: Screen Number for Wells in this Aquifer Layer
- -- Not Detected (< 0.5 µg/L)
- N/A Not Applicable
- *12/94 Date Represents Nearest Sampling Event with Respect to JPL Sampling Round.
- JPL Thrust Fault
- JPL Property Line
- Concentrations Between Detection Limit (0.5 µg/L) & MCL (5.0 µg/L)
- Concentrations 5.0 to 20.0 µg/L

Note: Distinctions between concentration (color) contours may become less clear in black and white photocopies. Refer to the original color figure for best resolution.

N

800 400 0 800
SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 4-21
TETRACHLOROETHENE
AQUIFER LAYER 1
August – September 1996
Jet Propulsion Laboratory
Pasadena, California
FOSTER WHEELER ENVIRONMENTAL CORPORATION

3-3-99

JPLF4-21.DWG

Jet Propulsion Laboratory

MW-1 —
MW-7 3.7
MW-16 1.0
MW-11 1: —
MW-15 —
MW-24 1: 0.5
MW-9 —
MW-6 2.0
MW-8 —
MW-13 0.5
MW-22 1: 2.3
MW-12 1: —
MW-14 1: —
MW-3 1: —
MH-01
MW-18 1: NS 2: —
MW-2
MW-23 1: 1.6
MW-4 1: —
MW-10 2.2
—

La Canada Irrigation District Wells
Well #1: — *9/97
Well #6: Not in Service

#6

Valley Water Company Wells
Well #3: 1.0 *9/97
Well #2: 9.1 *9/97
Well #4: 22.6 *7/97
Well #1: 38.0 *7/97

#1 #3 #2 #4 #1

City of Pasadena Arroyo Well
N/A

City of Pasadena Well 52
N/A

Lincoln Ave. Water Co. Well #3
N/A

MW-17 —

City of Pasadena Ventura Well
N/A

Lincoln Ave. Water Co. Well #5
N/A

City of Pasadena Windsor Well
N/A

MW-21 1: —

MW-19 1: —

MW-20 1: —

Las Flores Water Co. Well #2
4.8 *1/98

Rubio Cañon Land and Water Co. Wells
Well #4: — *12/94
Well #7: — *12/94

#4 #7

Oak Grove Ranger Station

Oak Grove Park

Devil's Gate Reservoir

Spreading Grounds

GOULD AVE
HAMPTON RD
CROWN
VIRO RD
OAK GROVE DR
FOOTHILL FWY
ALTADENA DR
LINCOLN AVE
CASITAS AVE
HARRIET ST
MARIPOSA DR
VENTURA ST
WINDSOR AVE
FIGUEROA
CROSBY STREET

Explanation

- JPL Shallow Monitoring Wells
- JPL Deep Multi-Port Monitoring Wells
- Municipal Production Wells
- City of Pasadena Monitoring Well
- 1: Screen Number for Wells in this Aquifer Layer
- — Not Detected (< 0.5 µg/L)
- N/A Not Applicable
- NS Not Sampled
- *12/94 Date Represents Nearest Sampling Event with Respect to JPL Sampling Round.
- JPL Thrust Fault
- JPL Property Line
- Concentrations Between Detection Limit (0.5 µg/L) & MCL (5.0 µg/L)
- Concentrations 5.0 to 20.0 µg/L

Note: Distinctions between concentration (color) contours may become less clear in black and white photocopies. Refer to the original color figure for best resolution.

N

800 400 0 800
SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 4-22

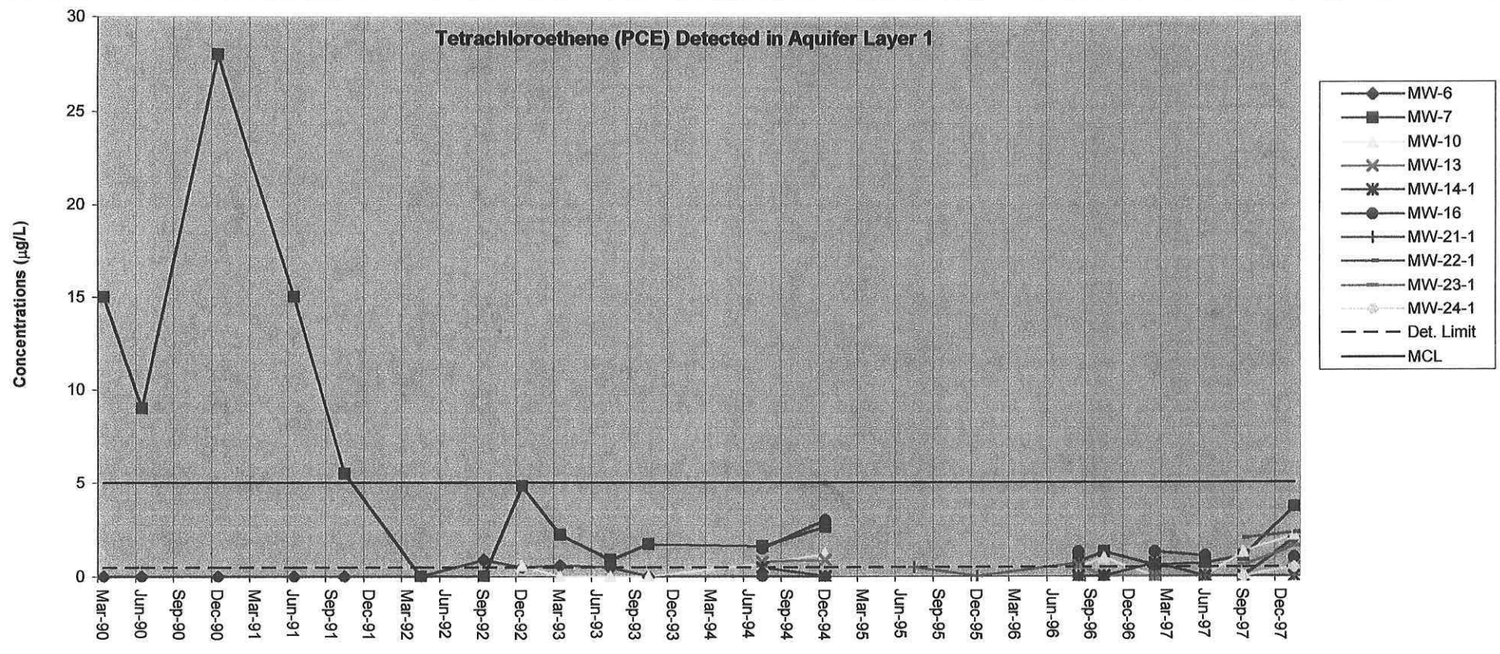
TETRACHLOROETHENE
AQUIFER LAYER 1

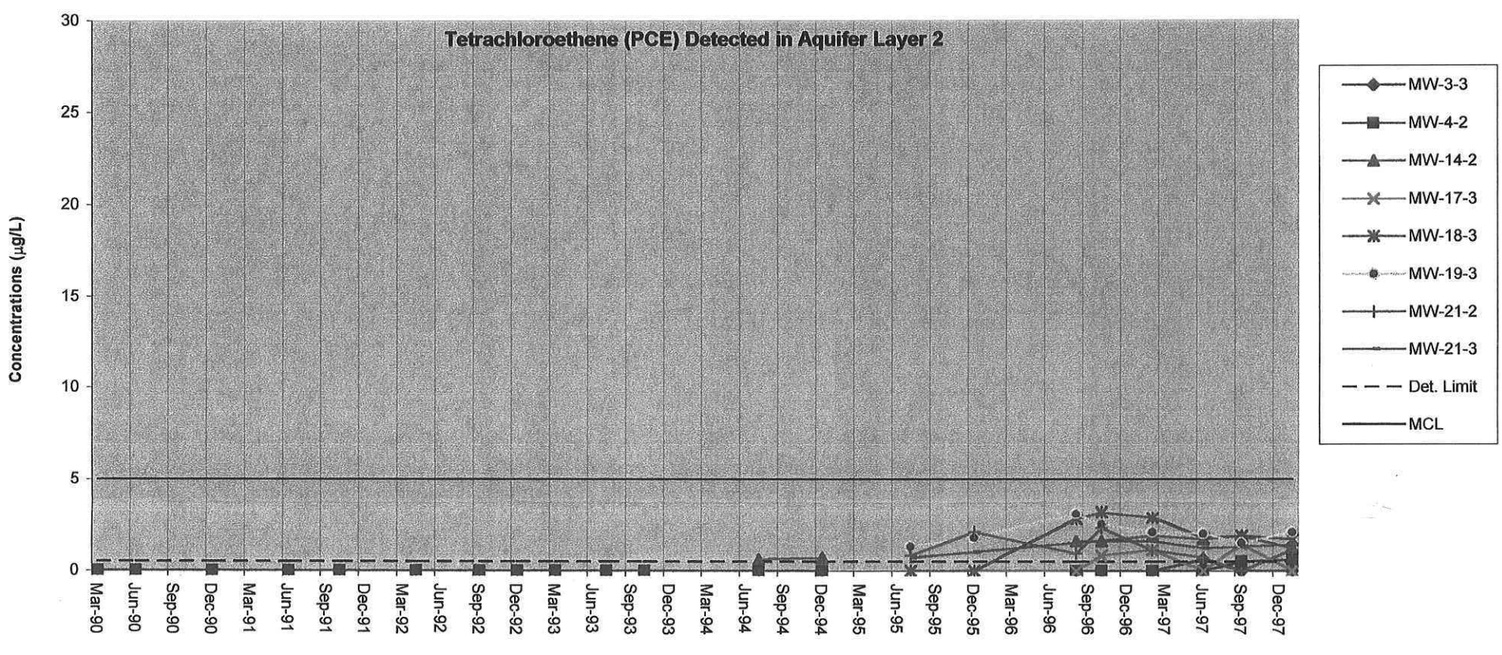
January – February 1998

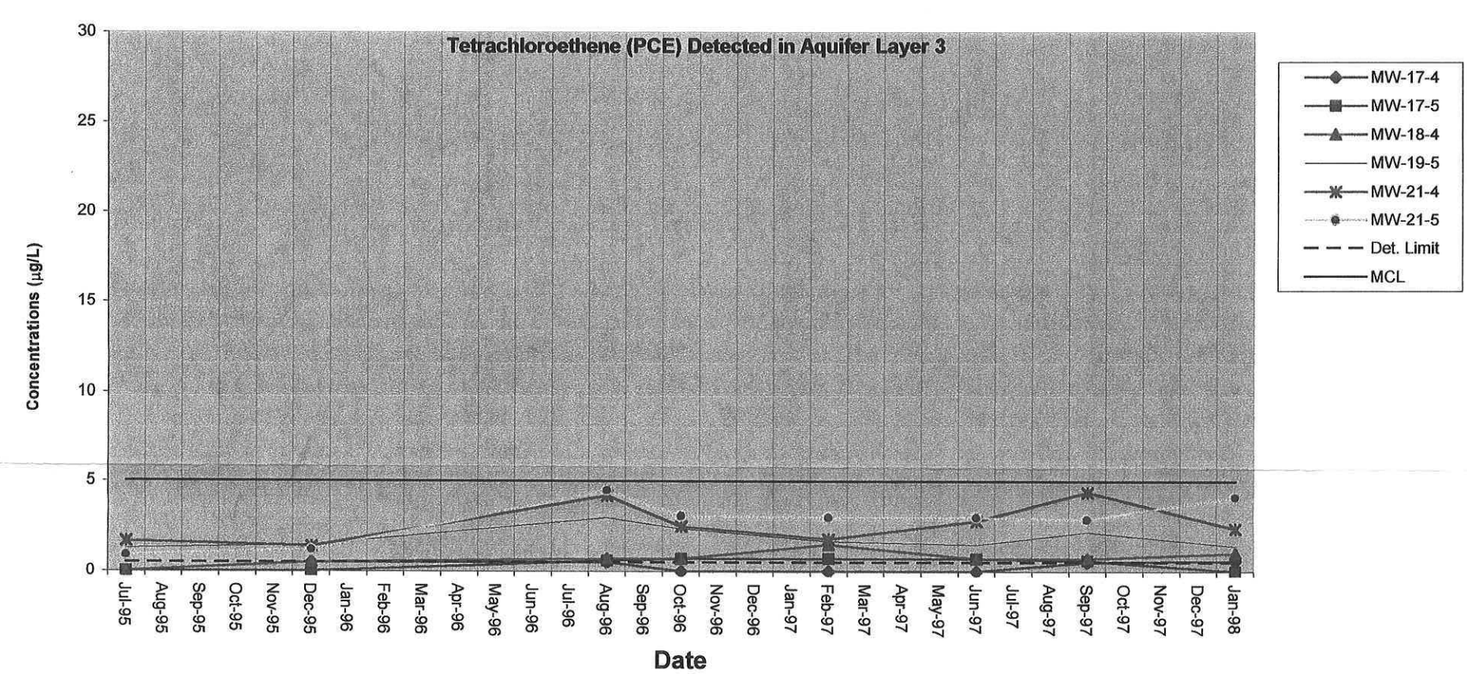
Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

3-3-99







Notes: 1. DL-Detection Limit (0.5 µg/L); CA MCL-Calif. EPA Maximum Concentration Limit (5 µg/L)

2. Zero value indicates that result was below detection limit

3. Only wells with one or more concentrations exceeding the DL are included

4. Where data gaps occur, screens were not sampled due to depressed water levels

5. For wells with two or more screens in one aquifer layer:

   A. When concentrations in one screen are always greater than the other, only the screen with the highest concentrations are shown

   B. When concentrations in one screen are not always greater than the other, both screens are represented

6. Monitoring Wells MW-22, MW-23, and MW-24 were installed in 1997

FIGURE 4-23

GRAPHS OF CONCENTRATIONS OF TETRACHLOROETHENE IN JPL AQUIFER LAYERS 1-3

March 1990 – January 1998

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

JPLF4-24.DWG

Jet Propulsion Laboratory

MW-1 N/A
MW-7 N/A
MW-16 N/A
MW-15 N/A
MW-11 2: — 3: — 4: —
MW-24 2: — 3: —
MW-9 N/A
MW-6 N/A
MW-8 N/A
MW-12 2: — 3: — 4: —
MW-22 2: — 3: —
MW-13 N/A
MW-14 2: 1.2 3: —
MW-3 2: — 3: —
MW-18 3: 1.7
MW-2
MH-01
MW-23 2: — 3: —
MW-4 2: 0.6 3: —
MW-10 N/A
MW-5 N/A
MW-17 2: — 3: —
MW-21 2: 1.1 3: 1.4
MW-19 2: 0.9 3: 2.1
MW-20 2: —

La Canada Irrigation District Wells
Well #1: — *9/97
Well #6: Not in Service

Valley Water Company Wells
Well #3: 1.0 *9/97
Well #2: 4.1 *9/97
Well #4: 22.6 *7/97
Well #1: 38.0 *7/97

City of Pasadena Arroyo Well — *6/97

City of Pasadena Well 52 — *11/97

City of Pasadena Ventura Well — *1/98

City of Pasadena Windsor Well 0.7 *1/98

Lincoln Ave. Water Co. Well #3 0.5 *1/98

Lincoln Ave. Water Co. Well #5 0.7 *6/97

Las Flores Water Co. 4.8 *1/98

Rubio Cañon Land and Water Co. Wells
Well #4: — *12/94
Well #7: — *12/94

GOULD AVE
HAMPTON RD
CROWN AVE
VIRO RD
OAK GROVE DR
FOOTHILL FWY
ALTADENA DR
LINCOLN AVE
CASITAS AVE
HARRIET ST
VENTURA ST
MARIPOSA DR
WINDSOR AVE
FIGUEROA
CROSBY STREET

Oak Grove Ranger Station
Spreading Grounds
Oak Grove Park
Devil's Gate Reservoir

Explanation

- JPL Shallow Monitoring Wells
- JPL Deep Multi-Port Monitoring Wells
- Municipal Production Wells
- City of Pasadena Monitoring Well
- 2: Screen Number for Wells in this Aquifer Layer
- — Not Detected (< 0.5 µg/L)
- N/A Not Applicable
- *12/94 Date Represents Nearest Sampling Event with Respect to JPL Sampling Round.
- JPL Thrust Fault
- JPL Property Line
- Concentrations Between Detection Limit (0.5 µg/L) & MCL (5.0 µg/L)
- Concentrations 5.0 to 20.0 µg/L

Note: Distinctions between concentration (color) contours may become less clear in black and white photocopies. Refer to the original color figure for best resolution.

800 400 0 800
SCALE IN FEET

Source: USGS, 7.5 Minute Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 4-25

TETRACHLOROETHENE
AQUIFER LAYER 2

January – February 1998

Jet Propulsion Laboratory
Pasadena, California

FOSTER WHEELER ENVIRONMENTAL CORPORATION

3-3-99