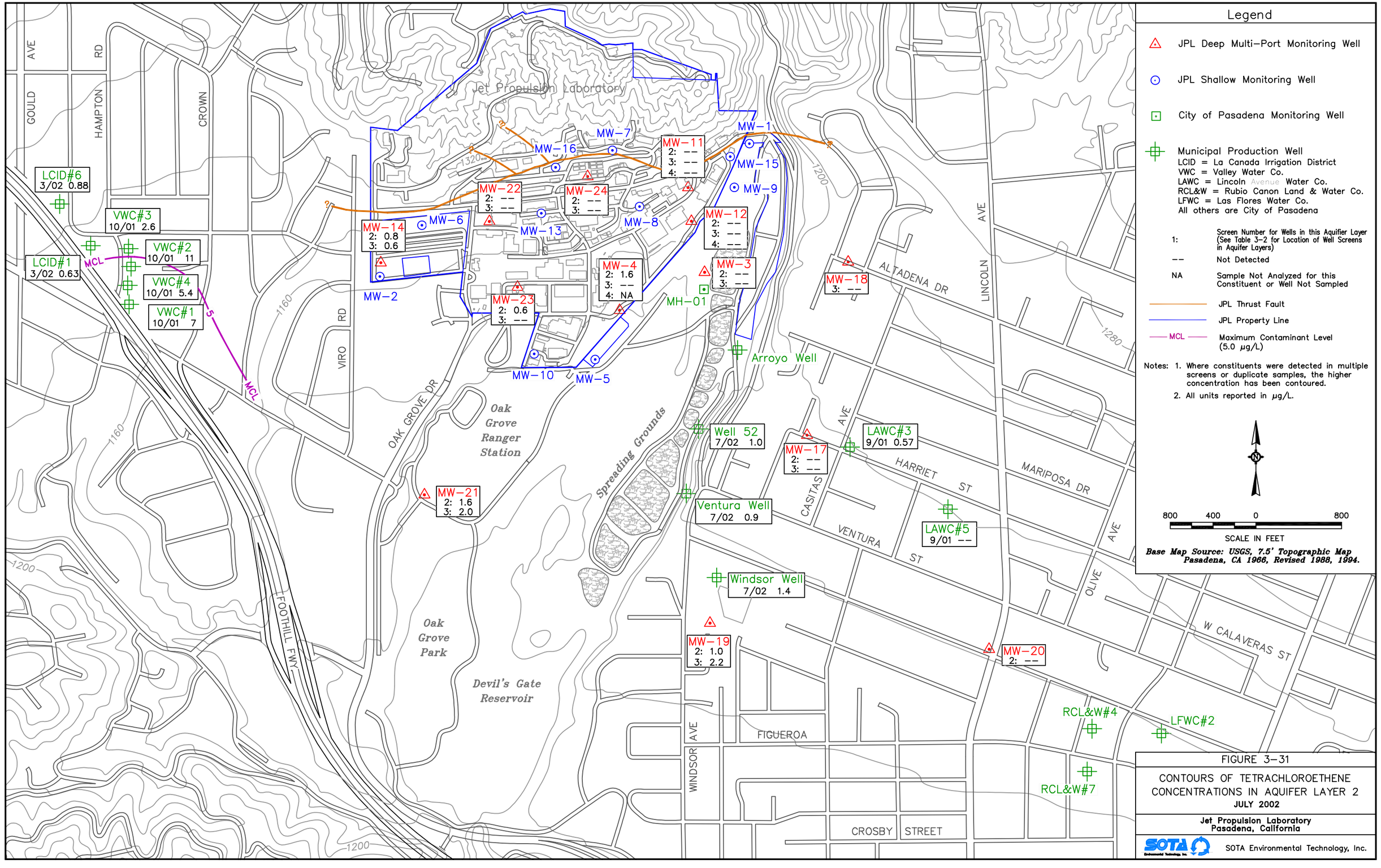


Legend

- JPL Deep Multi-Port Monitoring Well
- JPL Shallow Monitoring Well
- City of Pasadena Monitoring Well
- Municipal Production Well
  - LCID = La Canada Irrigation District
  - VWC = Valley Water Co.
  - LAWC = Lincoln Avenue Water Co.
  - RCL&W = Rubio Canon Land & Water Co.
  - LFWC = Las Flores Water Co.
  - All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location of Well Screens in Aquifer Layers)
- -- Not Detected
- NA Sample Not Analyzed for this Constituent or Well Not Sampled
- JPL Thrust Fault
- JPL Property Line
- MCL — Maximum Contaminant Level (5.0 µg/L)

Notes:
1. Where constituents were detected in multiple screens or duplicate samples, the higher concentration has been contoured.
2. All units reported in µg/L.

800 400 0 800

SCALE IN FEET

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

FIGURE 3-31

CONTOURS OF TETRACHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 2

JULY 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

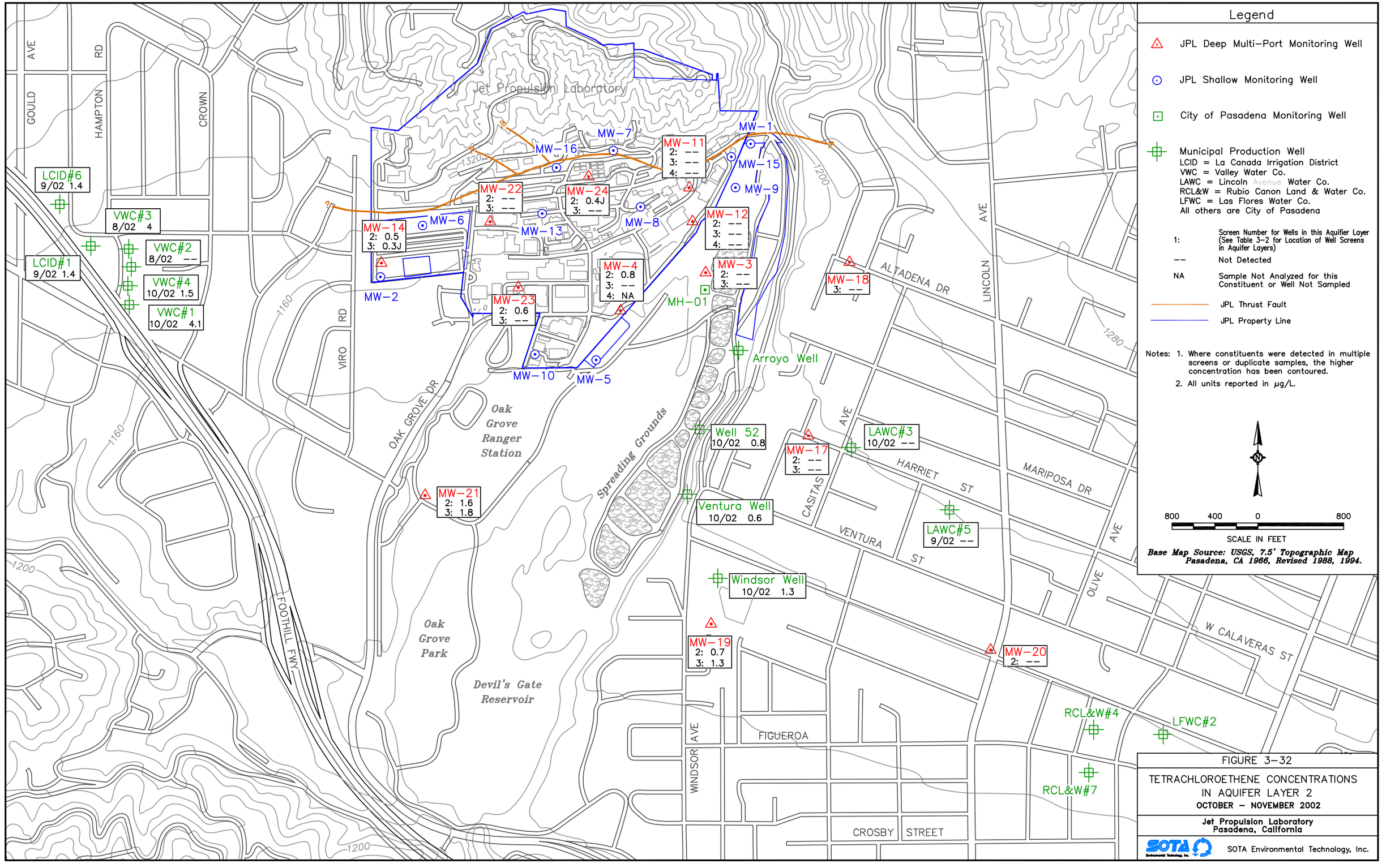


FIGURE 3-32

TETRACHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 2

OCTOBER – NOVEMBER 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

Jet Propulsion Laboratory

LCID#6 12/01 0.76

LCID#1 3/01 --

VWC#3 10/01 2.6

VWC#2 10/01 11

VWC#4 10/01 5.4

VWC#1 10/01 7

MW-14 4: 0.4J 5: --

MW-2

MW-6

MW-22 4: -- 5: --

MW-24 4: -- 5: --

MW-7

MW-16

MW-11 5: --

MW-1

MW-15

MW-9

MW-8

MW-12 5: --

MW-13

MW-3 4: -- 5: --

MW-4 5: --

MW-23 4: -- 5: --

MH-01

MW-10

MW-5

Arroyo Well

MW-18 4: 2.2 5: --

MCL

Oak Grove Ranger Station

Spreading Grounds

Well 52 1/02 --

MW-17 4: 0.4J 5: --

LAWC#3 9/01 0.57

Ventura Well 1/02 0.6

LAWC#5 9/01 --

Windsor Well 1/02 1.7

MW-21 4: 9.9 5: 19.2

MW-19 4: -- 5: 1.4

MW-20 3: 0.3J 4: --

RCL&W#4

LFWC#2

RCL&W#7

Oak Grove Park

Devil's Gate Reservoir

FOOTHILL FWY

GOULD AVE

HAMPTON RD

CROWN RD

VIRO RD

OAK GROVE DR

CASITAS AVE

WINDSOR AVE

OLIVE AVE

LINCOLN AVE

ALTADENA DR

HARRIET ST

MARIPOSA DR

VENTURA ST

FIGUEROA

CROSBY STREET

W CALAVERAS ST

Legend

- JPL Deep Multi-Port Monitoring Well
- JPL Shallow Monitoring Well
- City of Pasadena Monitoring Well
- Municipal Production Well
  - LCID = La Canada Irrigation District
  - VWC = Valley Water Co.
  - LAWC = Lincoln Avenue Water Co.
  - RCL&W = Rubio Canon Land & Water Co.
  - LFWC = Las Flores Water Co.
  - All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
- -- Not Detected
- J Estimated Concentration
- JPL Thrust Fault
- JPL Property Line
- MCL — Maximum Contaminant Level (5.0 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
2. All units reported in µg/L.

800 400 0 800

SCALE IN FEET

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

FIGURE 3-33

CONTOURS OF TETRACHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 3

JANUARY - FEBRUARY 2002

Jet Propulsion Laboratory Pasadena, California

SOTA Environmental Technology, Inc.

Jet Propulsion Laboratory

MW-1
MW-2
MW-3 4: -- 5: NA
MW-4 5: NA
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11 5: NA
MW-12 5: --
MW-13
MW-14 4: -- 5: --
MW-15
MW-16
MW-17 4: 1.4 5: 0.8
MW-18 4: 7.7 5: --
MW-19 4: -- 5: 3.3
MW-20 3: -- 4: --
MW-21 4: 5.8 5: 28.6
MW-22 4: NA 5: NA
MW-23 4: NA 5: NA
MW-24 4: NA 5: NA
MH-01

LCID#6 3/02 0.88
LCID#1 3/02 0.63
VWC#3 10/01 2.6
VWC#2 10/01 11
VWC#4 10/01 5.4
VWC#1 10/01 7
Arroyo Well
Well 52 1/02 --
Ventura Well 1/02 0.6
Windsor Well 1/02 1.7
LAWC#3 9/01 0.57
LAWC#5 9/01 --
RCL&W#4
RCL&W#7
LFWC#2

MCL
5

GOULD AVE
HAMPTON RD
CROWN RD
VIRO RD
OAK GROVE DRIVE DR
TADENA DR
LINCOLN AVE
CASITAS AVE
HARRIET ST
MARIPOSA DR
VENTURA ST
OLIVE AVE
W CALAVERAS ST
FIGUEROA
WINDSOR AVE
CROSBY STREET
FOOTHILL FWY

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

Legend

- JPL Deep Multi-Port Monitoring Well
- JPL Shallow Monitoring Well
- City of Pasadena Monitoring Well
- Municipal Production Well
  - LCID = La Canada Irrigation District
  - VWC = Valley Water Co.
  - LAWC = Lincoln Avenue Water Co.
  - RCL&W = Rubio Canon Land & Water Co.
  - LFWC = Las Flores Water Co.
  - All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location of Well Screens in Aquifer Layers)
- -- Not Detected
- NA Sample Not Analyzed for this Constituent or Well Not Sampled
- JPL Thrust Fault
- JPL Property Line
- MCL — Maximum Contaminant Level (5.0 µg/L)

Notes:
1. Where constituents were detected in multiple screens or duplicate samples, the higher concentration has been contoured.
2. All units reported in µg/L.

N

800 400 0 800
SCALE IN FEET

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

FIGURE 3-34

CONTOURS OF TETRACHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 3
APRIL - MAY 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

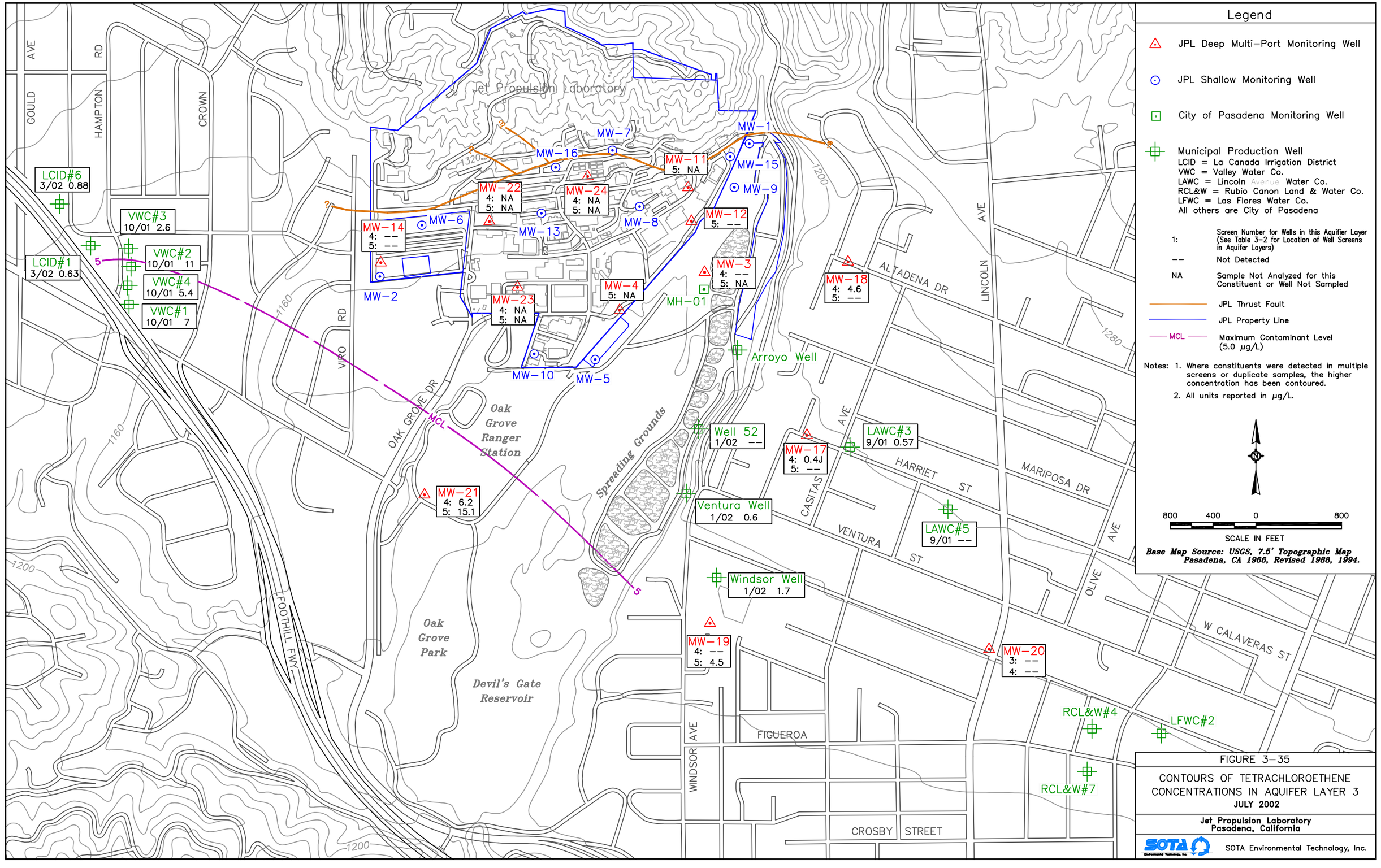


FIGURE 3-35

CONTOURS OF TETRACHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 3

JULY 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

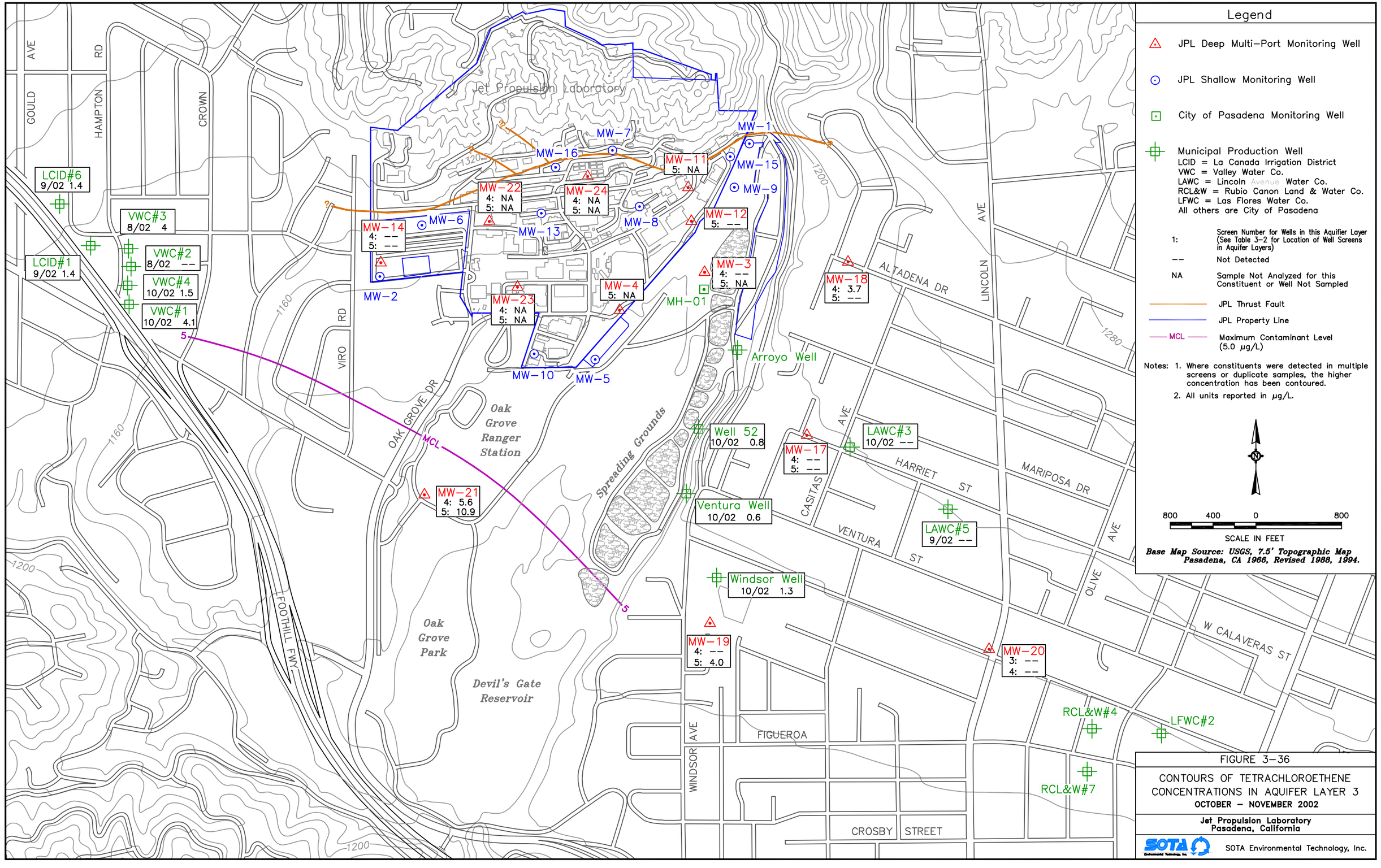


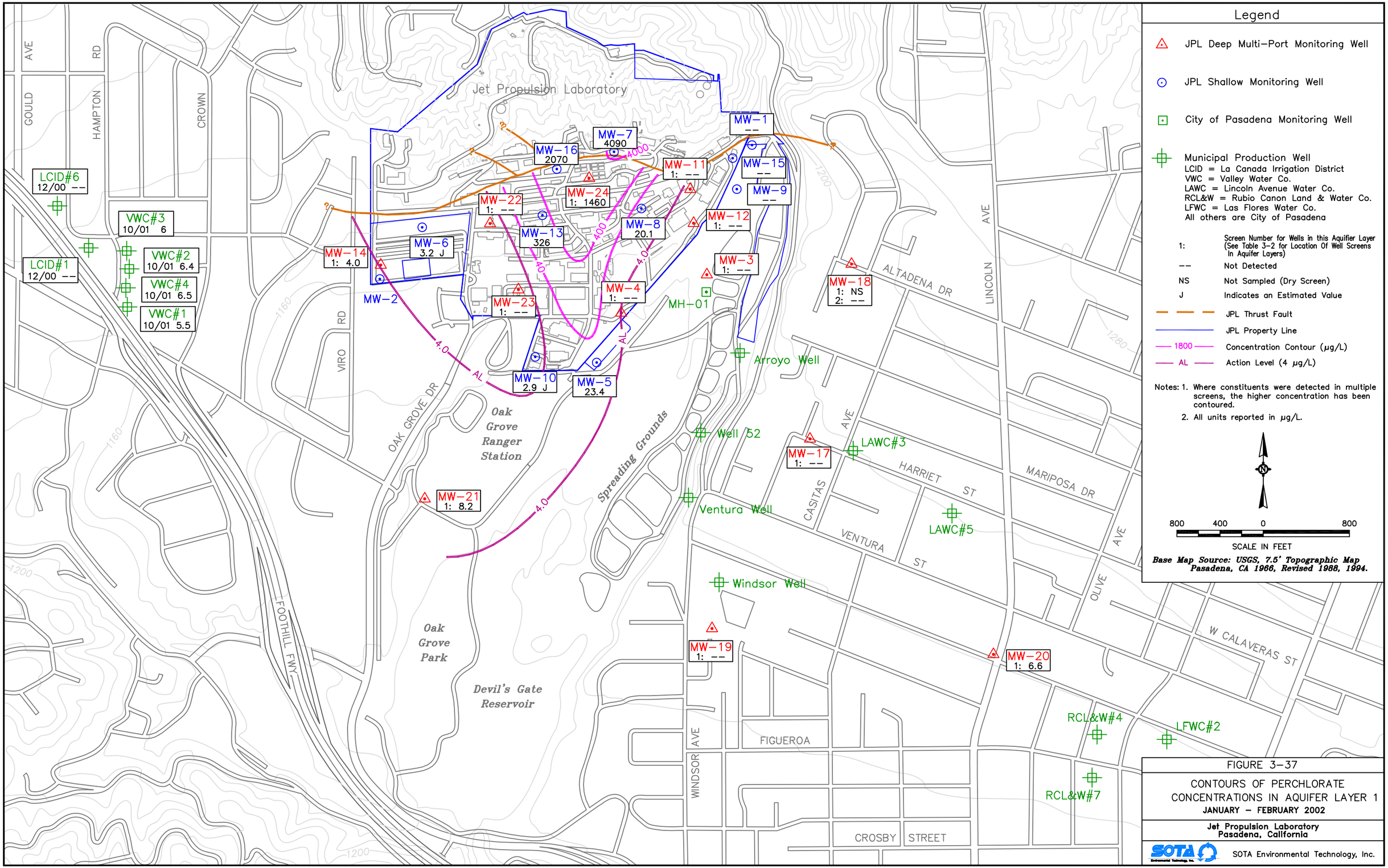
FIGURE 3-36

CONTOURS OF TETRACHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 3

OCTOBER - NOVEMBER 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

- JPL Deep Multi-Port Monitoring Well
- JPL Shallow Monitoring Well
- City of Pasadena Monitoring Well
- Municipal Production Well
  - LCID = La Canada Irrigation District
  - VWC = Valley Water Co.
  - LAWC = Lincoln Avenue Water Co.
  - RCL&W = Rubio Canon Land & Water Co.
  - LFWC = Las Flores Water Co.
  - All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
- -- Not Detected
- NS Not Sampled (Dry Screen)
- J Indicates an Estimated Value
- JPL Thrust Fault
- JPL Property Line
- 1800 Concentration Contour (µg/L)
- AL Action Level (4 µg/L)

Notes:
1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
2. All units reported in µg/L.

800 400 0 800
SCALE IN FEET

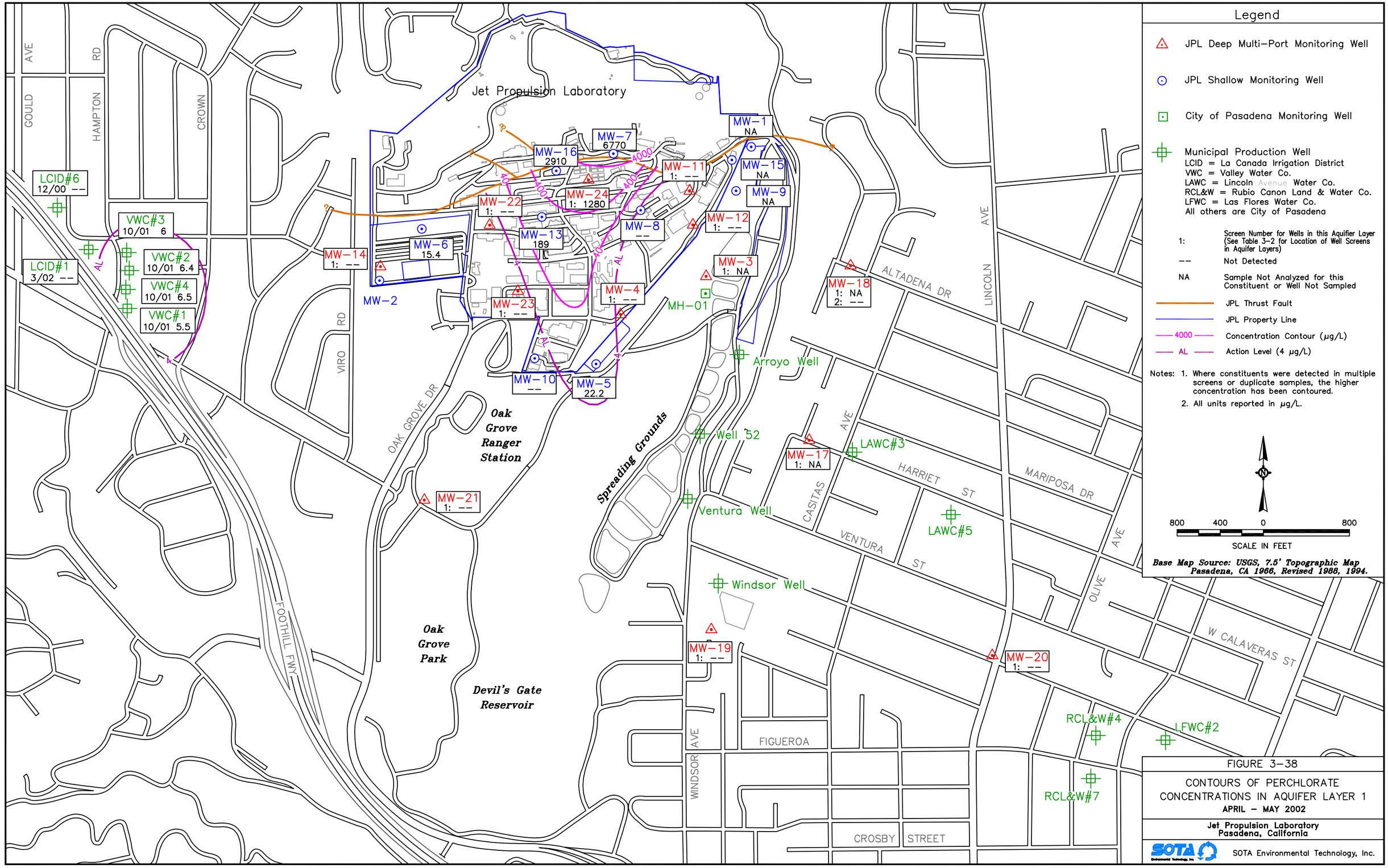
Base Map Source: USGS, 7.5' Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 3-37

CONTOURS OF PERCHLORATE CONCENTRATIONS IN AQUIFER LAYER 1
JANUARY - FEBRUARY 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

- JPL Deep Multi-Port Monitoring Well
- JPL Shallow Monitoring Well
- City of Pasadena Monitoring Well
- Municipal Production Well
  - LCID = La Canada Irrigation District
  - VWC = Valley Water Co.
  - LAWC = Lincoln Avenue Water Co.
  - RCL&W = Rubio Canon Land & Water Co.
  - LFWC = Las Flores Water Co.
  - All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location of Well Screens in Aquifer Layers)
- -- Not Detected
- NA Sample Not Analyzed for this Constituent or Well Not Sampled
- JPL Thrust Fault
- JPL Property Line
- 4000 Concentration Contour (µg/L)
- AL Action Level (4 µg/L)

Notes:
1. Where constituents were detected in multiple screens or duplicate samples, the higher concentration has been contoured.
2. All units reported in µg/L.

800 400 0 800

SCALE IN FEET

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

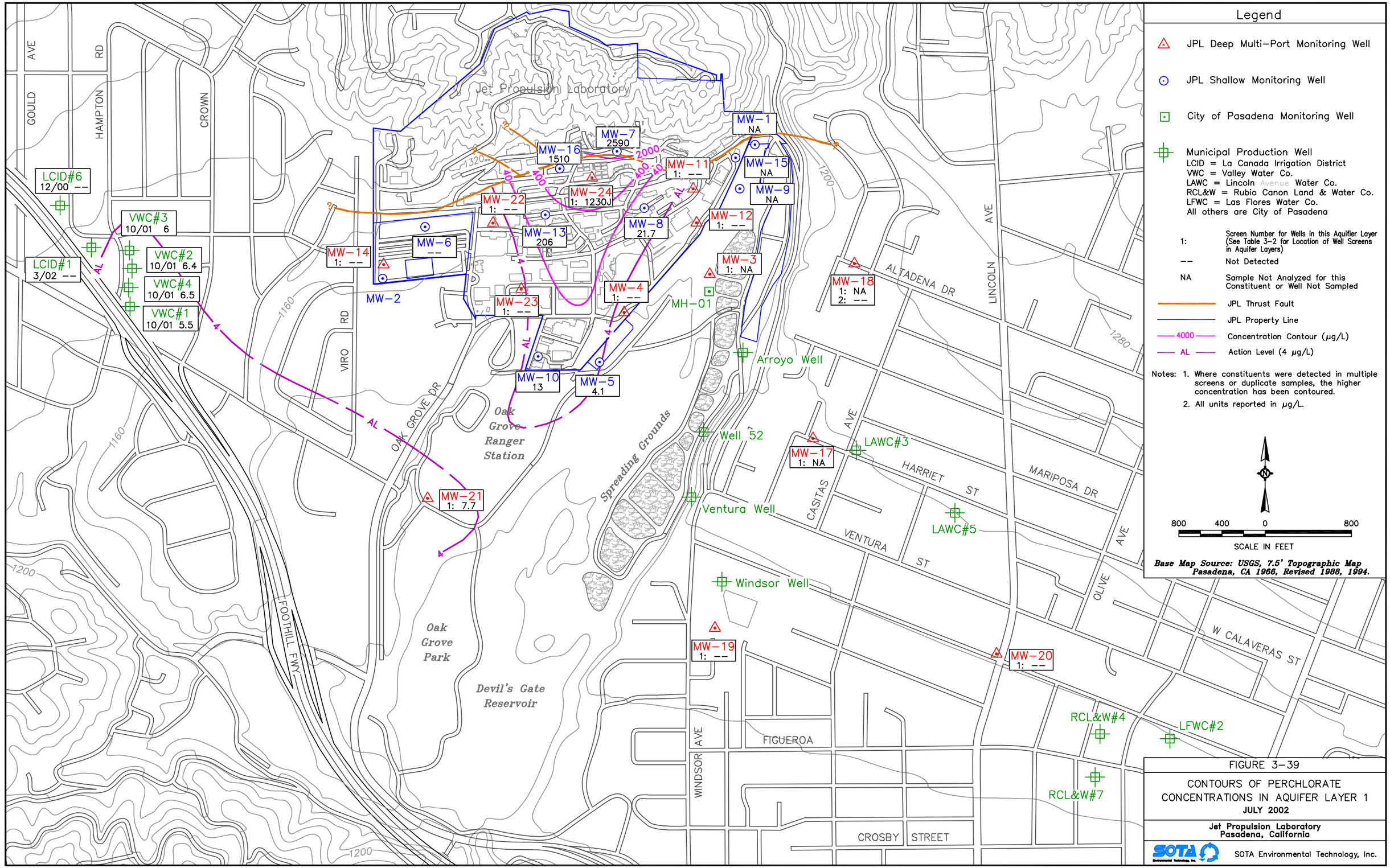
FIGURE 3-38

CONTOURS OF PERCHLORATE CONCENTRATIONS IN AQUIFER LAYER 1

APRIL - MAY 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

- JPL Deep Multi-Port Monitoring Well
- JPL Shallow Monitoring Well
- City of Pasadena Monitoring Well
- Municipal Production Well
  - LCID = La Canada Irrigation District
  - VWC = Valley Water Co.
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  - LFWC = Las Flores Water Co.
  - All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location of Well Screens in Aquifer Layers)
- -- Not Detected
- NA Sample Not Analyzed for this Constituent or Well Not Sampled
- JPL Thrust Fault
- JPL Property Line
- 4000 Concentration Contour (µg/L)
- AL Action Level (4 µg/L)

Notes:
1. Where constituents were detected in multiple screens or duplicate samples, the higher concentration has been contoured.
2. All units reported in µg/L.

800 400 0 800

SCALE IN FEET

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

FIGURE 3-39

CONTOURS OF PERCHLORATE CONCENTRATIONS IN AQUIFER LAYER 1

JULY 2002

Jet Propulsion Laboratory Pasadena, California

SOTA Environmental Technology, Inc.

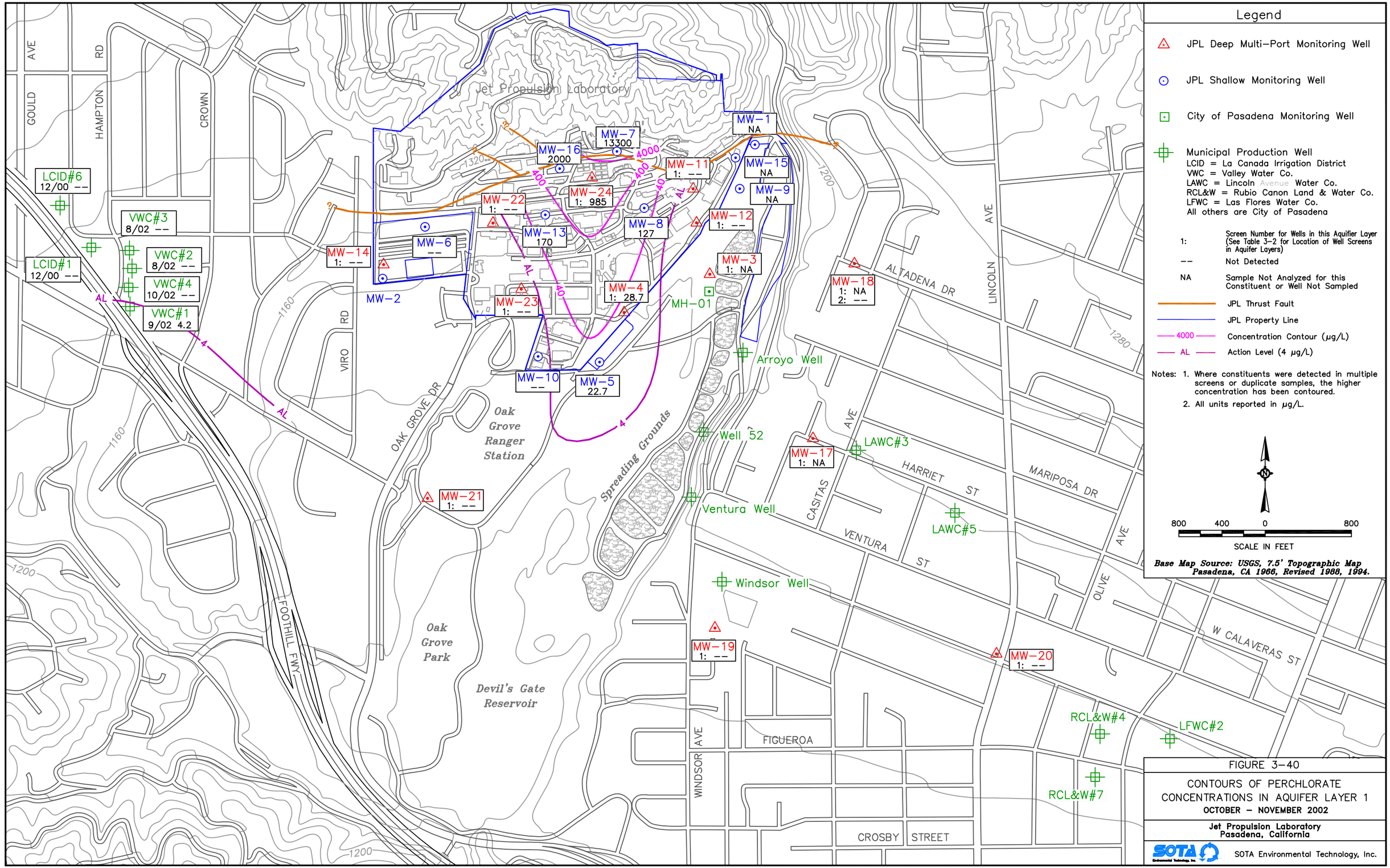

FIGURE 3-40

CONTOURS OF PERCHLORATE CONCENTRATIONS IN AQUIFER LAYER 1

OCTOBER – NOVEMBER 2002

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.