Figures

N

EXPLANATION

BOEING REALTY CORPORATION:
FORMER C-6 FACILITY

REFERENCE:
Base map downloaded from 'Tiger File' data website hosted by ESRI.

0 1 2 Miles

APPROXIMATE HORIZONTAL SCALE

FIGURE 1

SITE LOCATION MAP

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

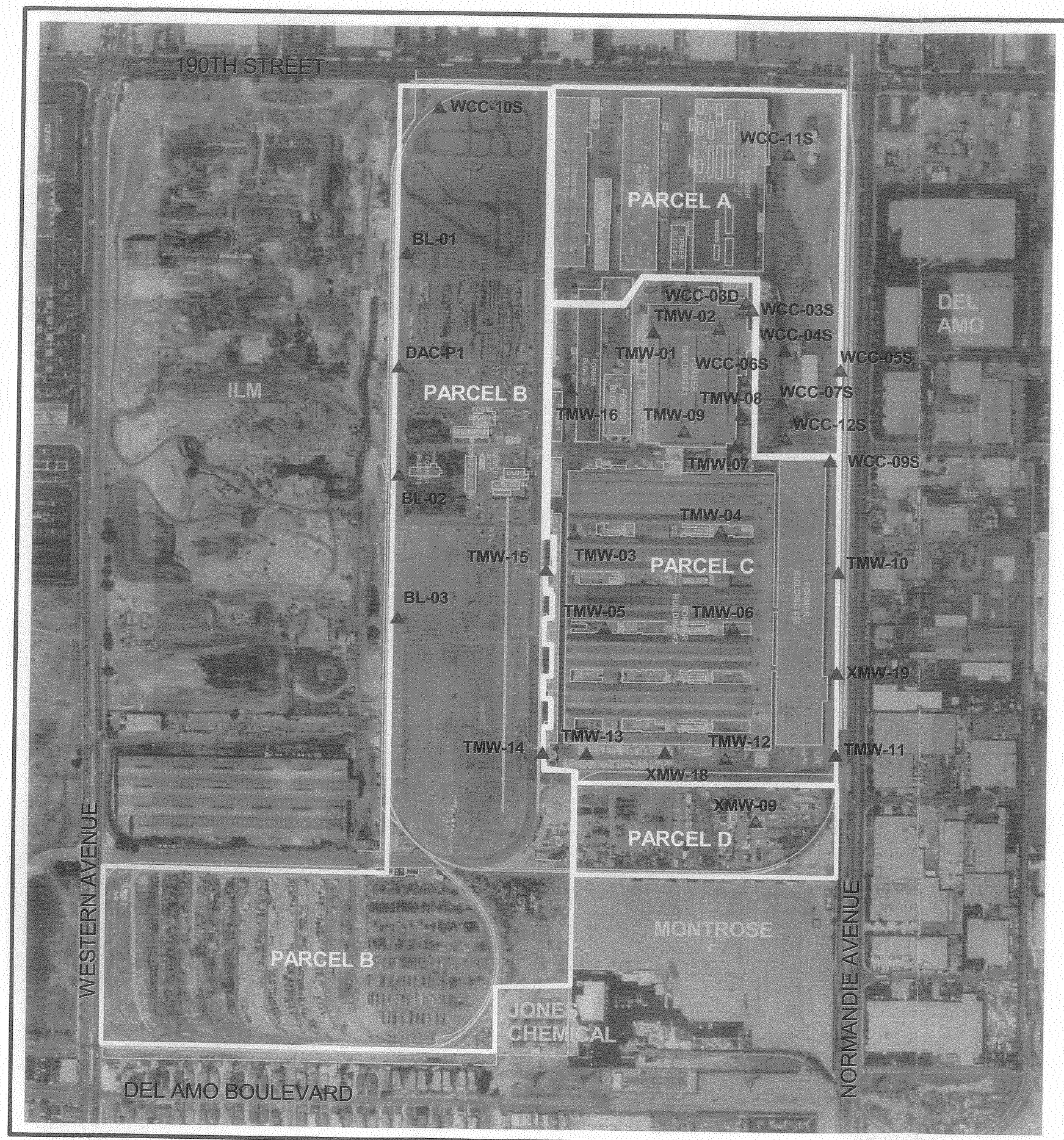
PREPARED FOR

BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH

ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232594



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EXPLANATION

WCC-10S ▲	GROUNDWATER MONITORING WELL SAMPLED DURING JANUARY/FEBRUARY 2001
WCC-11S ▲	GROUNDWATER MONITORING WELL SAMPLED DURING JANUARY/FEBRUARY 2001, AND INCLUDED IN NATURAL ATTENUATION STUDY

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 300 600 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 2

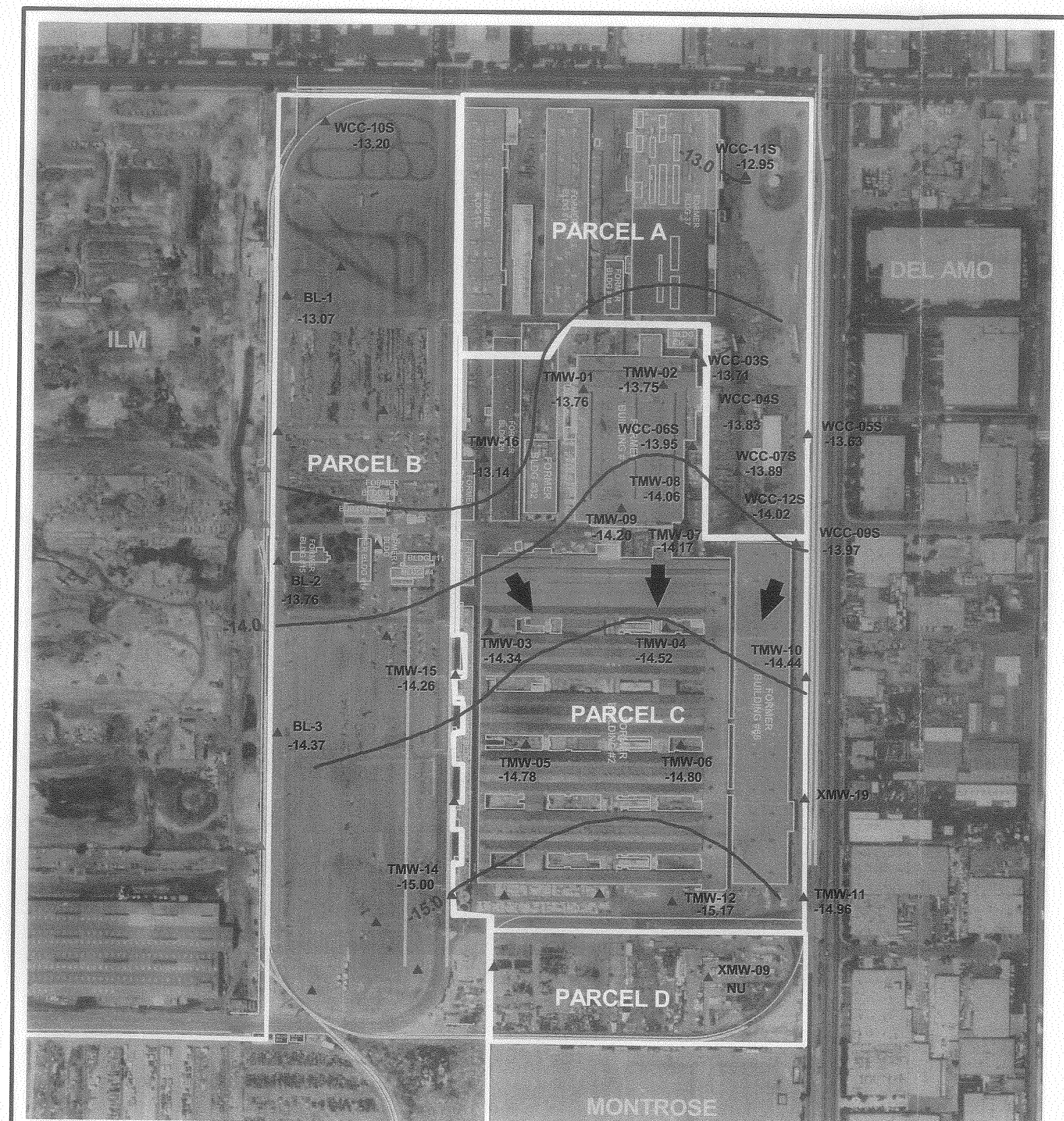
SITE PLAN SHOWING GROUNDWATER MONITORING WELL SAMPLE LOCATIONS ANNUAL EVENT JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR
BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH
ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232595



N

EXPLANATION

WCC-10S ▲ -13.20	BOEING GROUNDWATER MONITORING WELL SHOWING GROUNDWATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (MSL)
▲	ILM GROUNDWATER MONITORING WELL
-14.0	LINE OF EQUAL GROUNDWATER ELEVATION IN FEET ABOVE MSL
◄	DIRECTION OF GROUNDWATER FLOW

NOTES:
1. COUNTOUR INTERVAL = 0.5 FOOT
2. NU = NOT USED, TOP OF WELL CASING ELEVATION UNKNOWN

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 3

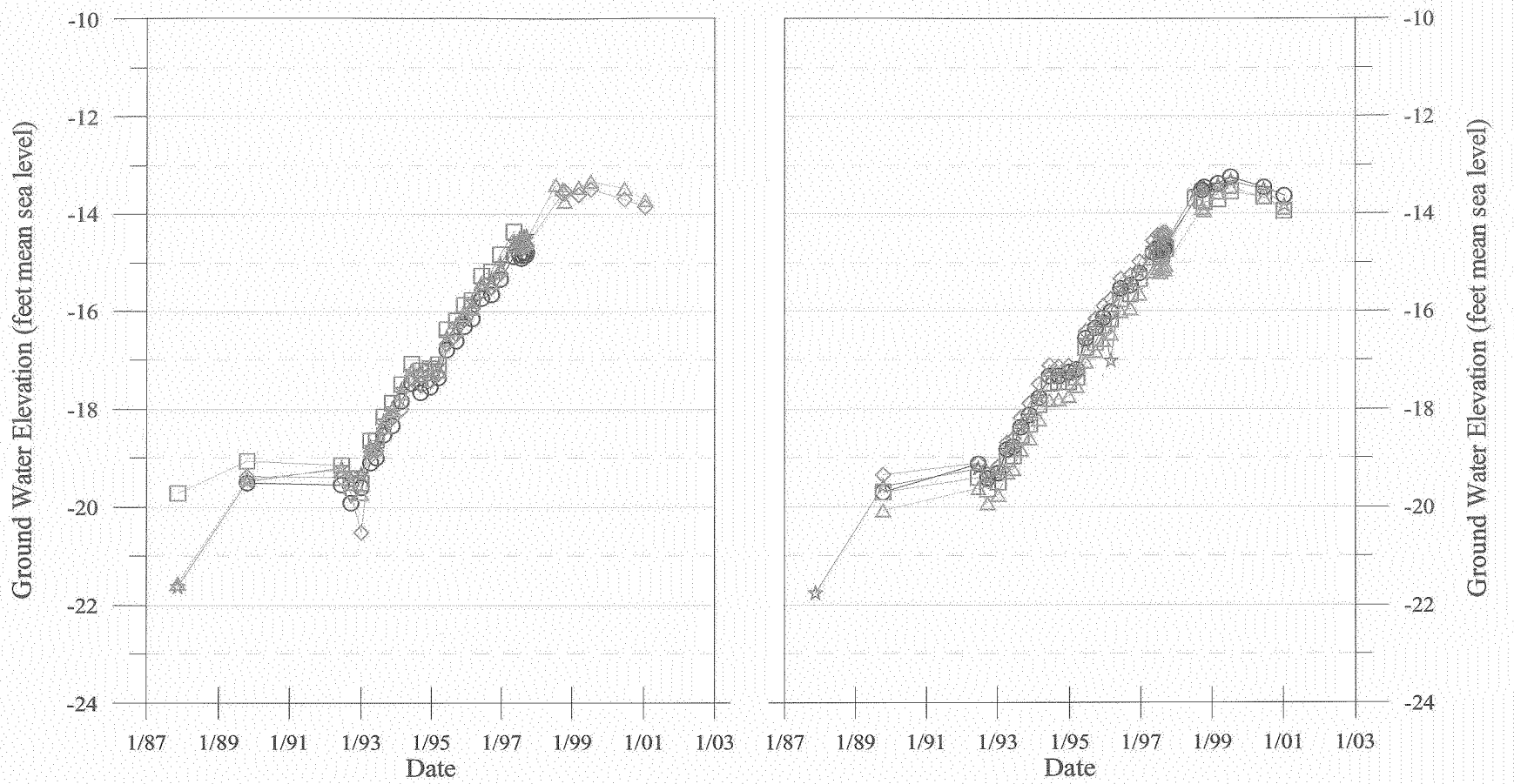
GROUNDWATER ELEVATION MAP
ANNUAL EVENT
JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR
BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH
ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232596



Left Graph
- WCC-1S
- WCC-1D
- WCC-2S
- WCC-3S
- WCC-3D

Right Graph
- WCC-4S
- WCC-5S
- WCC-6S
- WCC-7S
- WCC-8S

FIGURE 4a

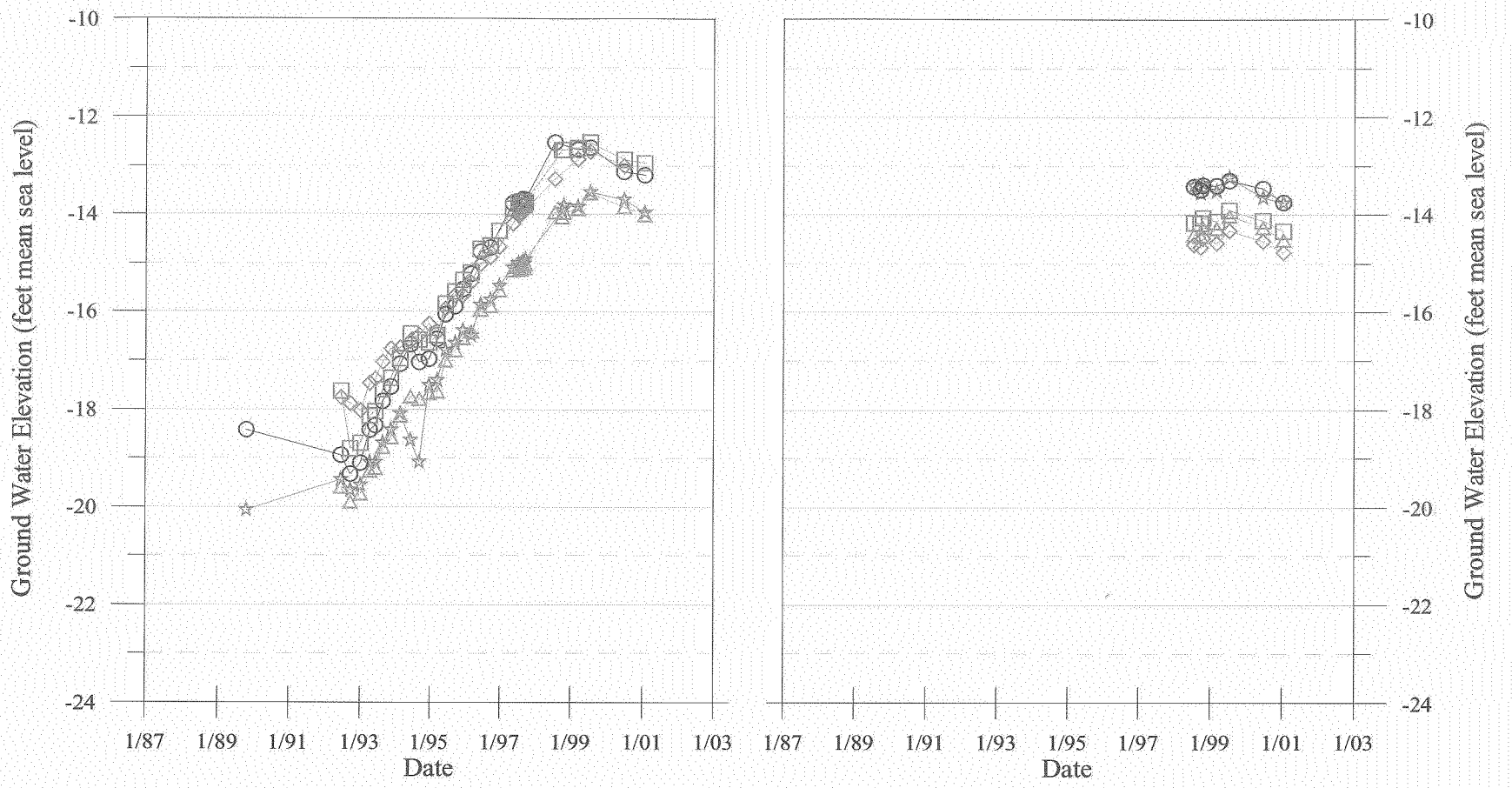
HYDROGRAPHS

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232597



Left Graph
- WCC-9S
- WCC-10S
- WCC-11S
- WCC-12S
- DAC-P1

Right Graph
- TMW-1
- TMW-2
- TMW-3
- TMW-4
- TMW-5

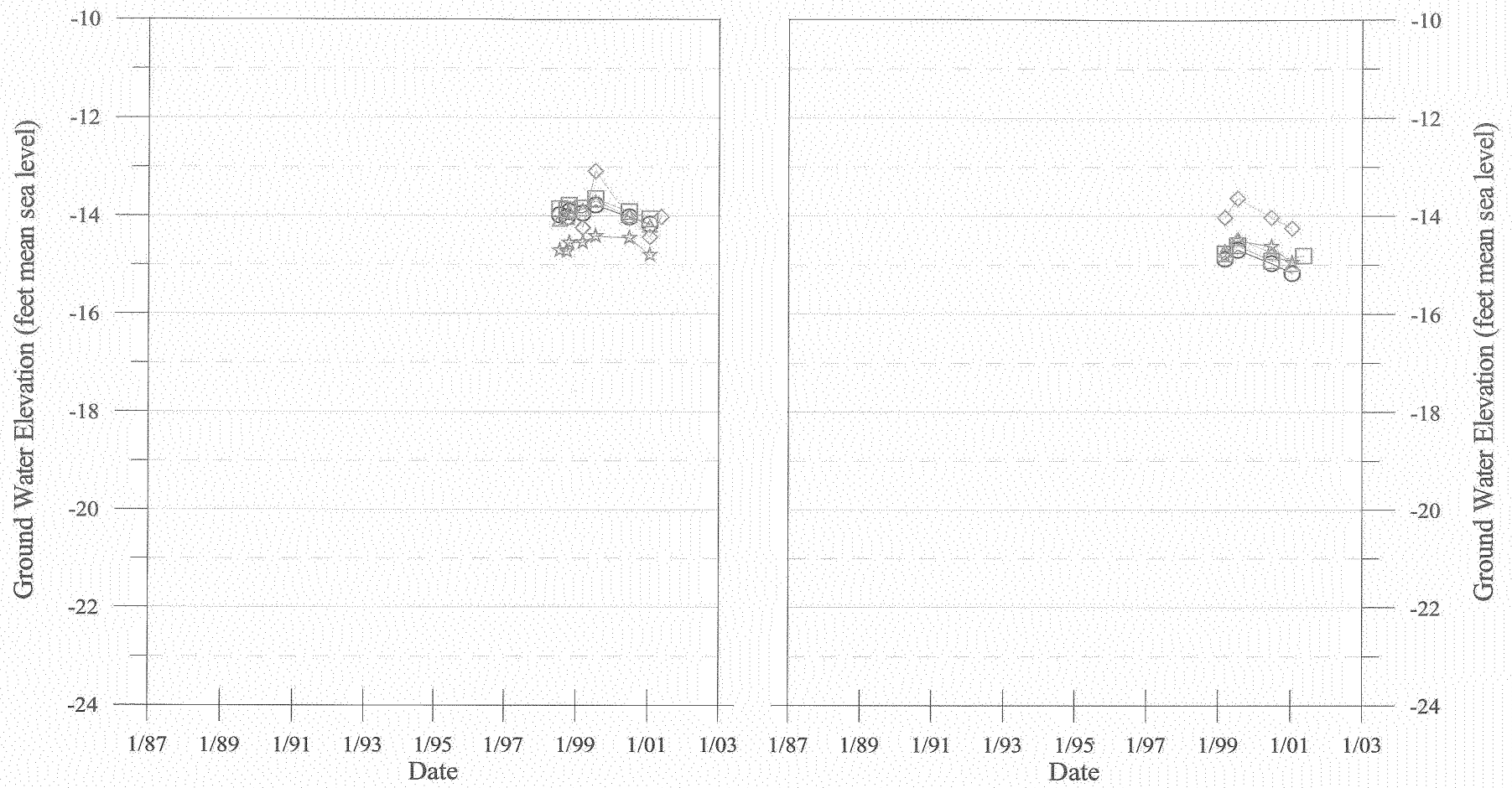
FIGURE 4b

HYDROGRAPHS
Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232598



Left Graph
- TMW-6
- TMW-7
- TMW-8
- TMW-9
- TMW-10

Right Graph
- TMW-11
- TMW-12
- TMW-13
- TMW-14
- TMW-15

FIGURE 4c

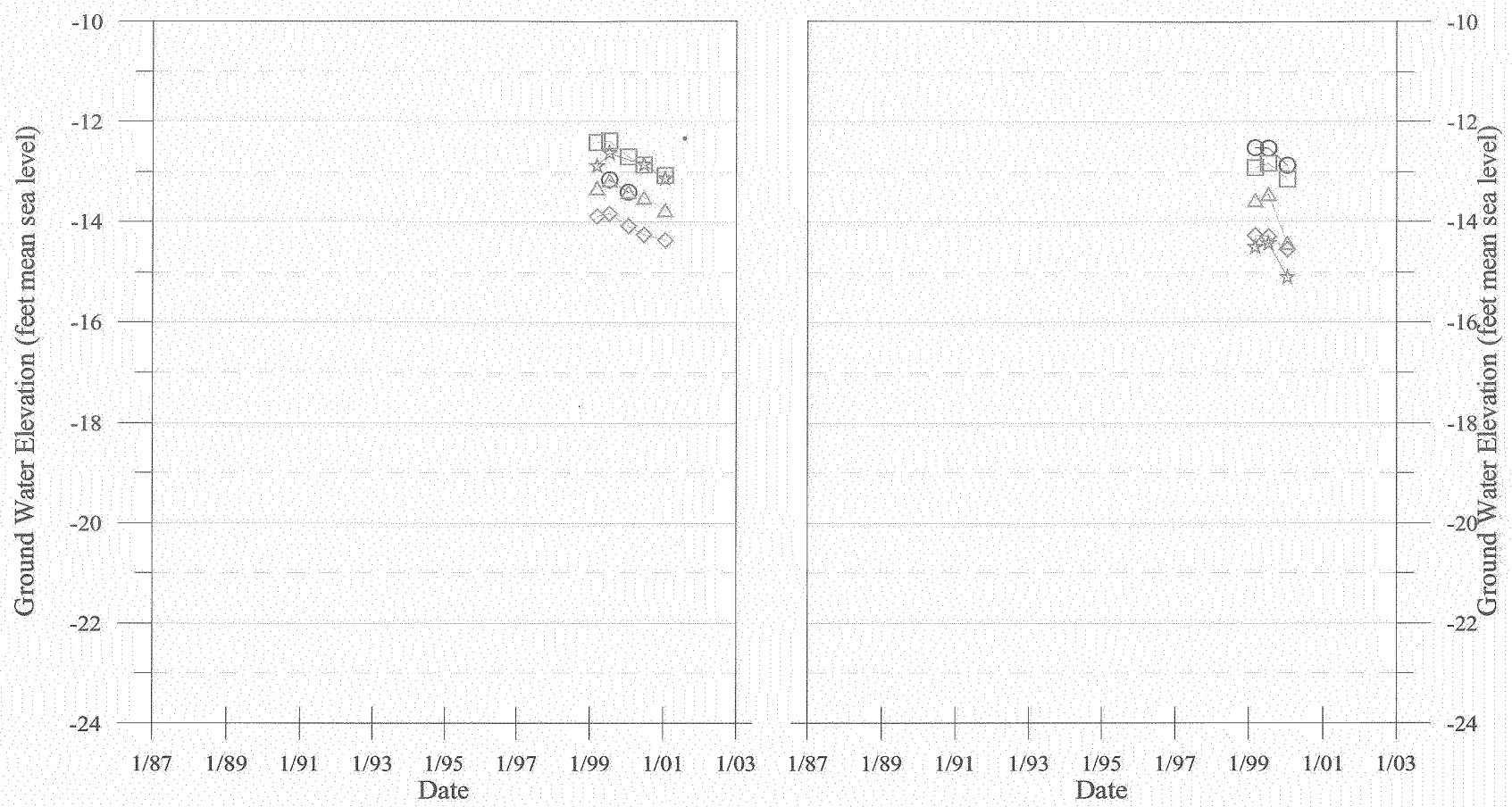
HYDROGRAPHS

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232599



Left Graph
- TMW-16
- TMW-17
- BL-1
- BL-2
- BL-3

Right Graph
- BL-4
- BL-5
- BL-6
- BL-7
- BL-8

FIGURE 4d

HYDROGRAPHS

Former C-6 Facility
Los Angeles, California

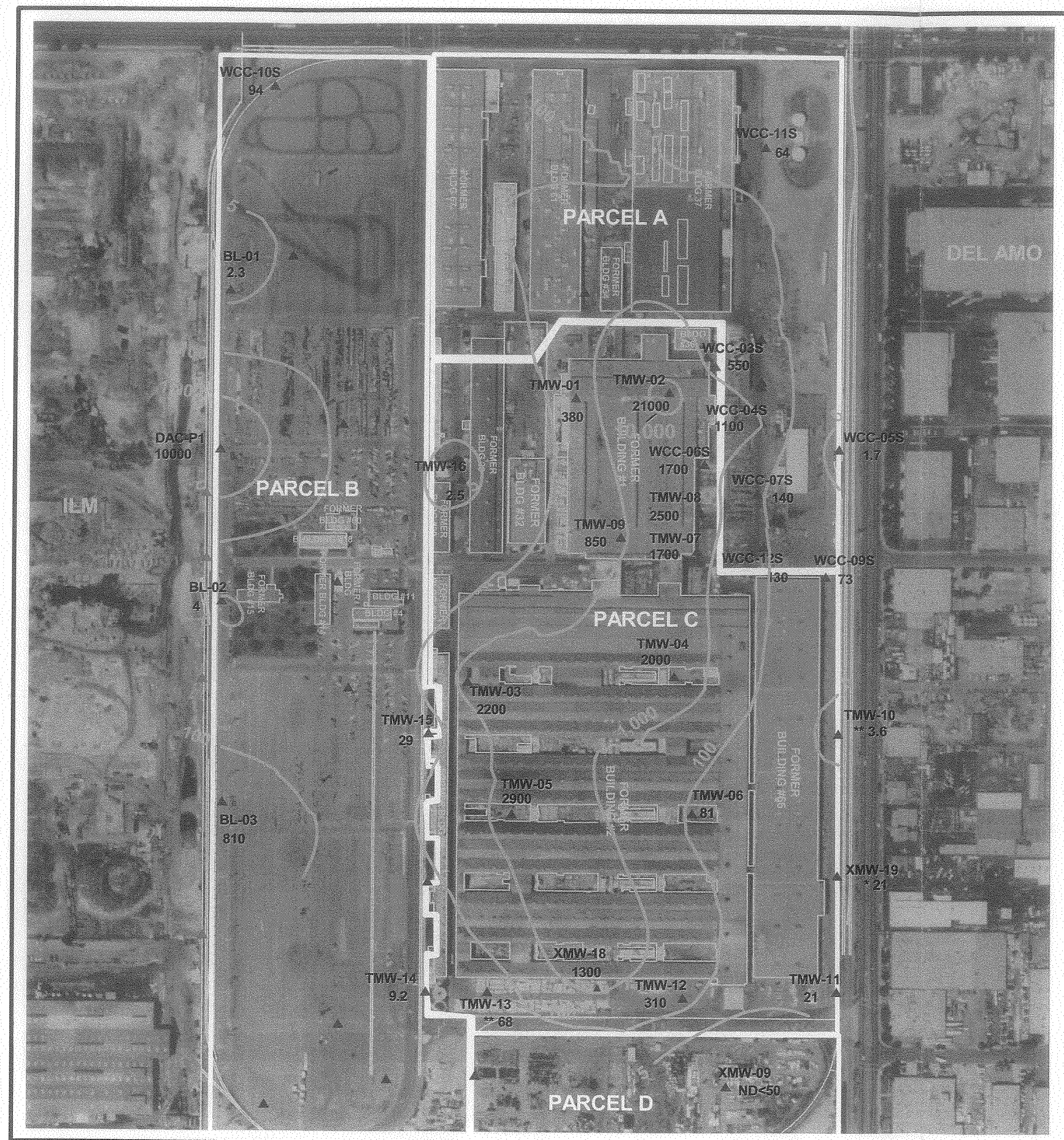
Prepared For

Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232600



N

EXPLANATION

WCC-11S ▲ 64	BOEING GROUNDWATER MONITORING WELL SHOWING TCE CONCENTRATION IN µg/l
▲	ILM GROUNDWATER MONITORING WELL
100	LINE OF EQUAL TCE CONCENTRATION IN µg/l

NOTES:
1. ISOCONCENTRATION CONTOUR INTERVAL = VARIABLE
2. * XMW-19 DATA COLLECTED ON MARCH 21, 2001.
3. ** TMW-10 AND ** TMW-13 DATA COLLECTED ON MAY 5, 2001.

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 5

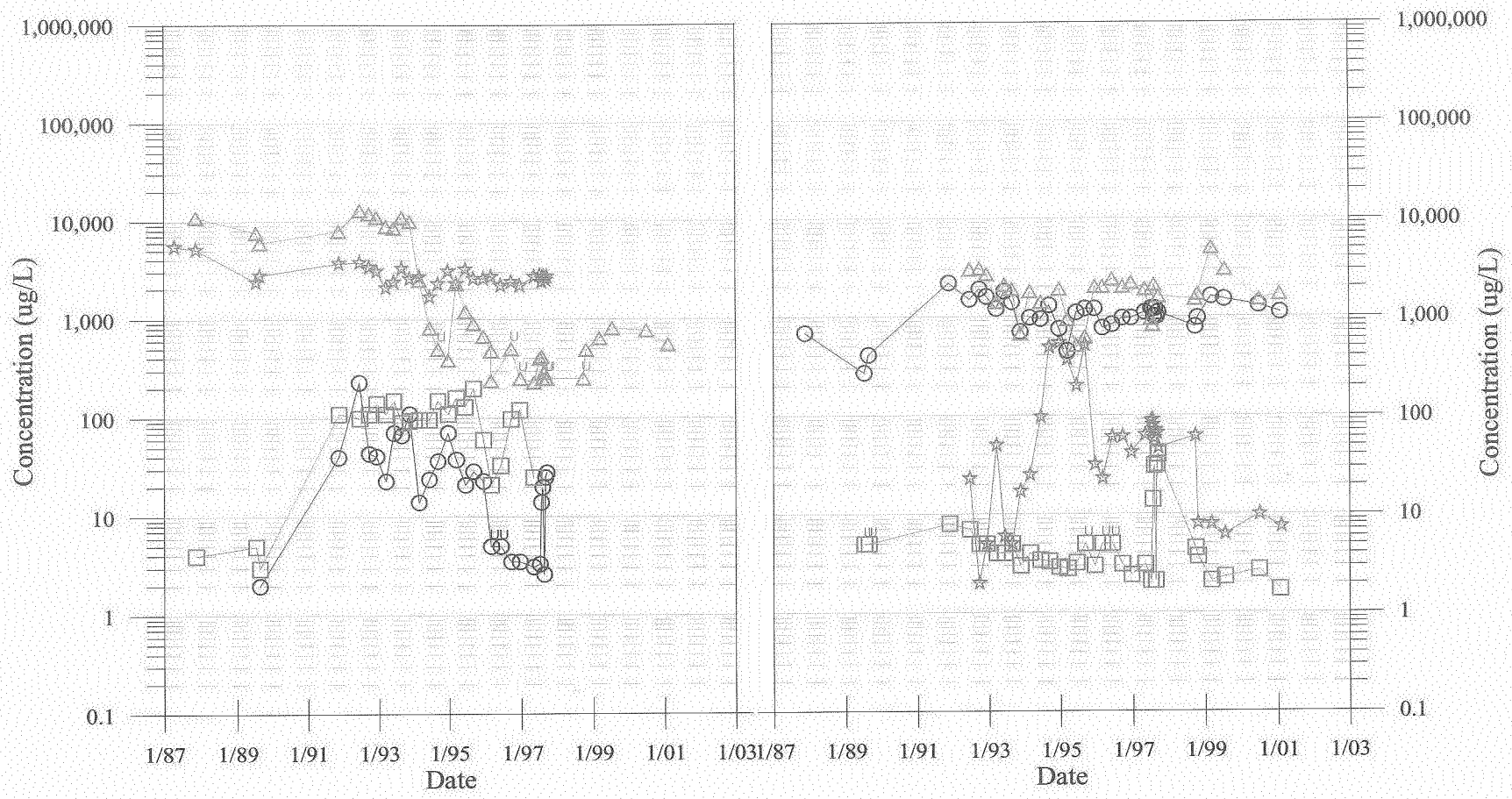
TCE DISTRIBUTION IN GROUNDWATER
ANNUAL EVENT
JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR
BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH
ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232601



Left Graph
- WCC-1S
- WCC-1D
- WCC-2S
- WCC-3S

Right Graph
- WCC-3D
- WCC-4S
- WCC-5S
- WCC-6S

FIGURE 6a

TCE CONCENTRATION VS. TIME

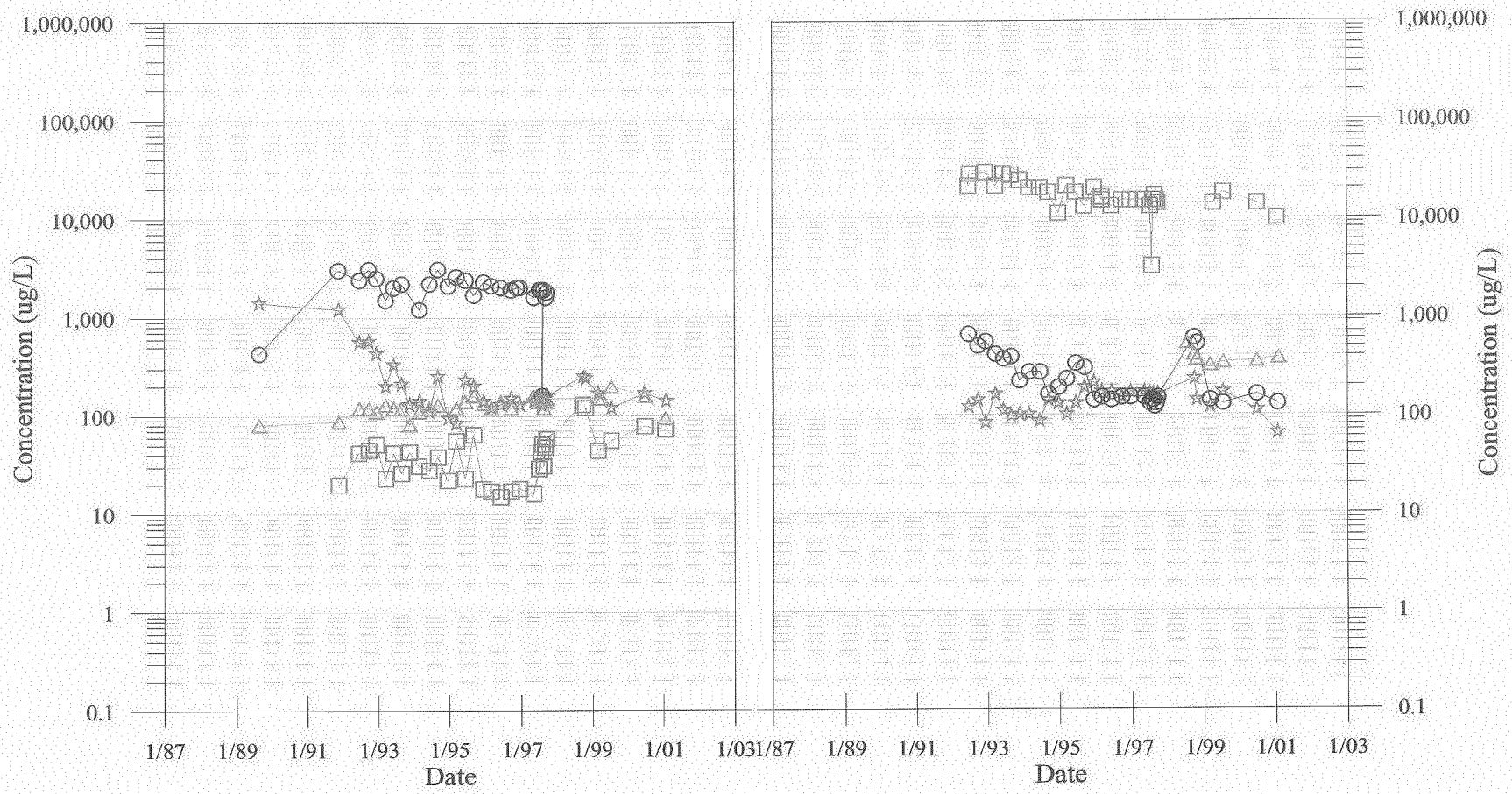
Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

U = Not Detected

ENGLAND GEOSYSTEM

BOE-C6-0232602



U = Not Detected

FIGURE 6b

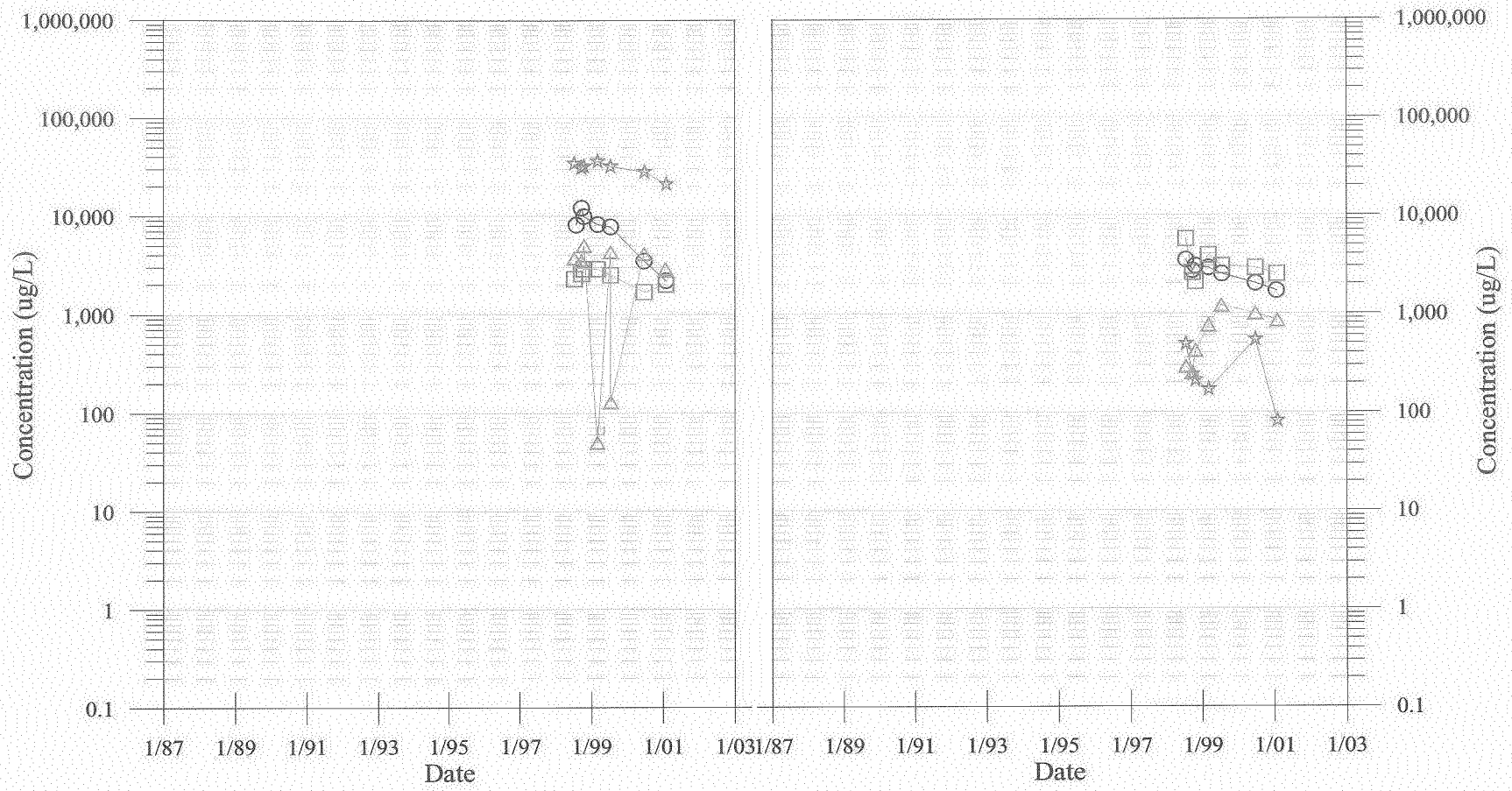
TCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232603



Left Graph
- TMW-2
- TMW-3
- TMW-4
- TMW-5

Right Graph
- TMW-6
- TMW-7
- TMW-8
- TMW-9

U = Not Detected

FIGURE 6c

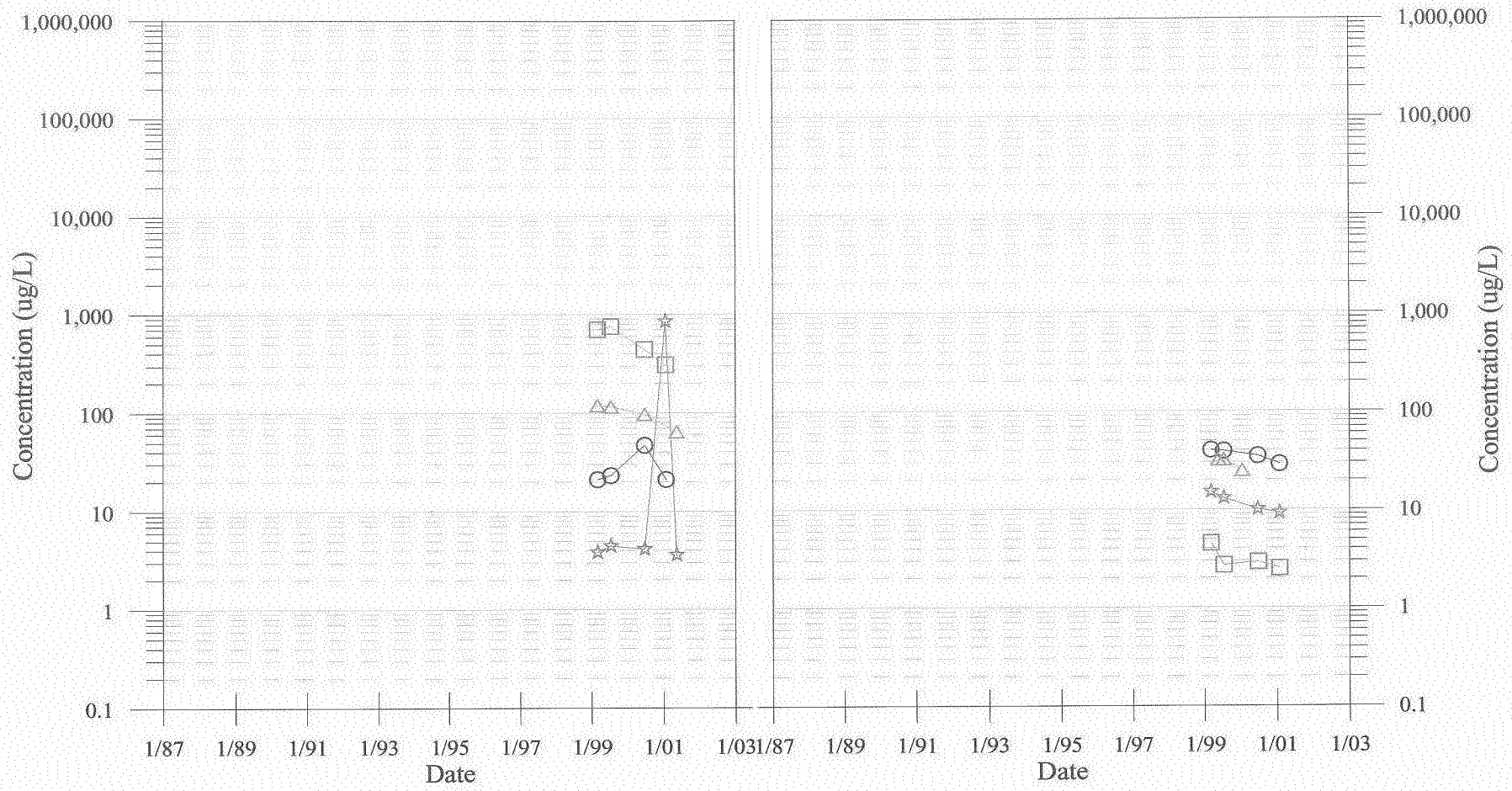
TCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232604



Left Graph
- TMW-10
- TMW-11
- TMW-12
- TMW-13

Right Graph
- TMW-14
- TMW-15
- TMW-16
- TMW-17

U = Not Detected

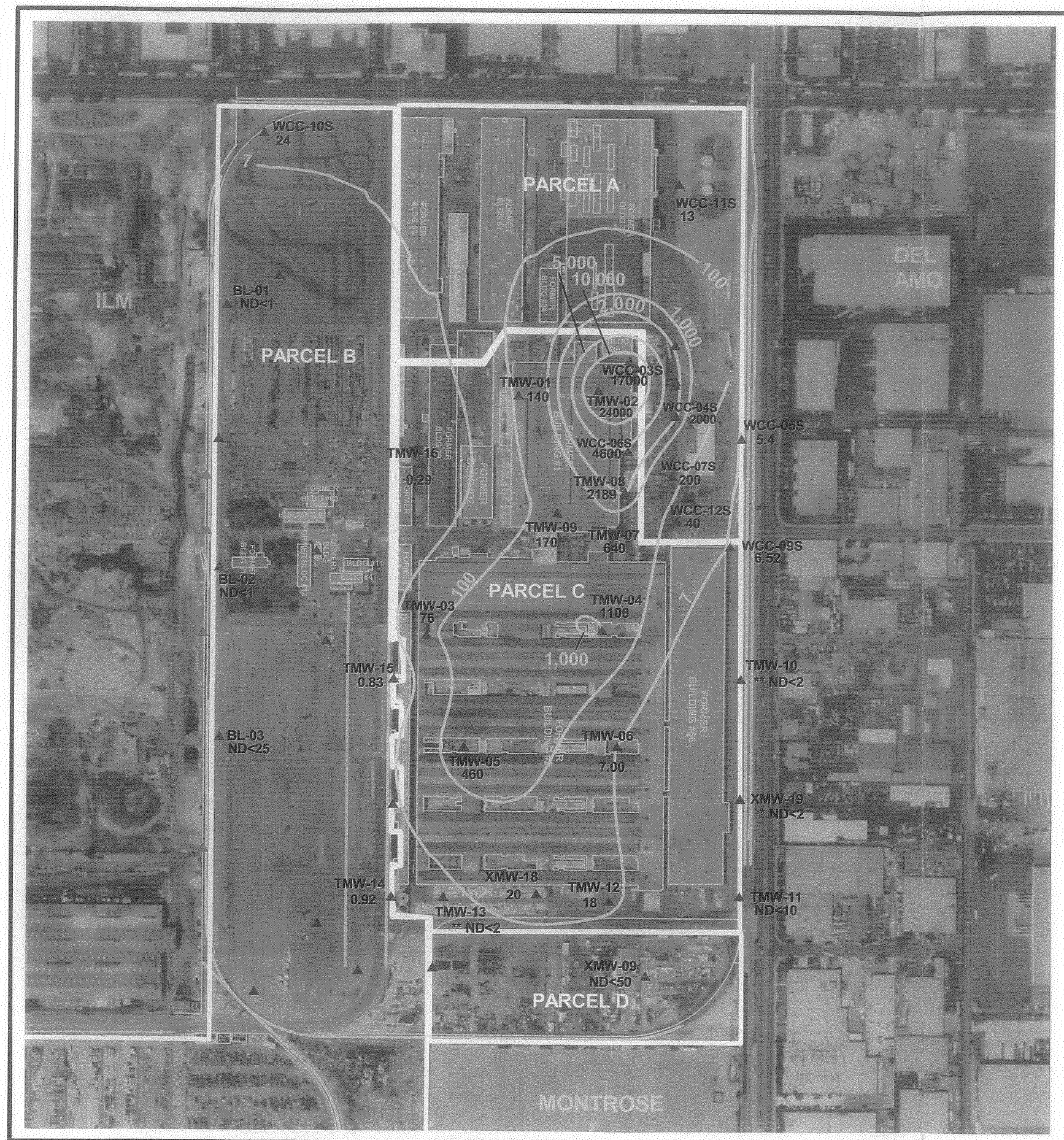
FIGURE 6d

TCE CONCENTRATION VS. TIME
Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232605



N

EXPLANATION

WCC-11S ▲ 13 — BOEING GROUNDWATER MONITORING WELL SHOWING 1,1-DCE CONCENTRATION IN µg/l

▲ — ILM GROUNDWATER MONITORING WELL

LINE OF EQUAL 1,1-DCE CONCENTRATION IN µg/l

NOTES:
1. ISOCONCENTRATION CONTOUR INTERVAL = VARIABLE
2. * XMW-19 DATA COLLECTED ON MARCH 21, 2001.
3. ** TMW-10 AND ** TMW-13 DATA COLLECTED ON MAY 5, 2001.

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 7

1,1-DCE DISTRIBUTION IN GROUNDWATER ANNUAL EVENT JANUARY/FEBRUARY 2001

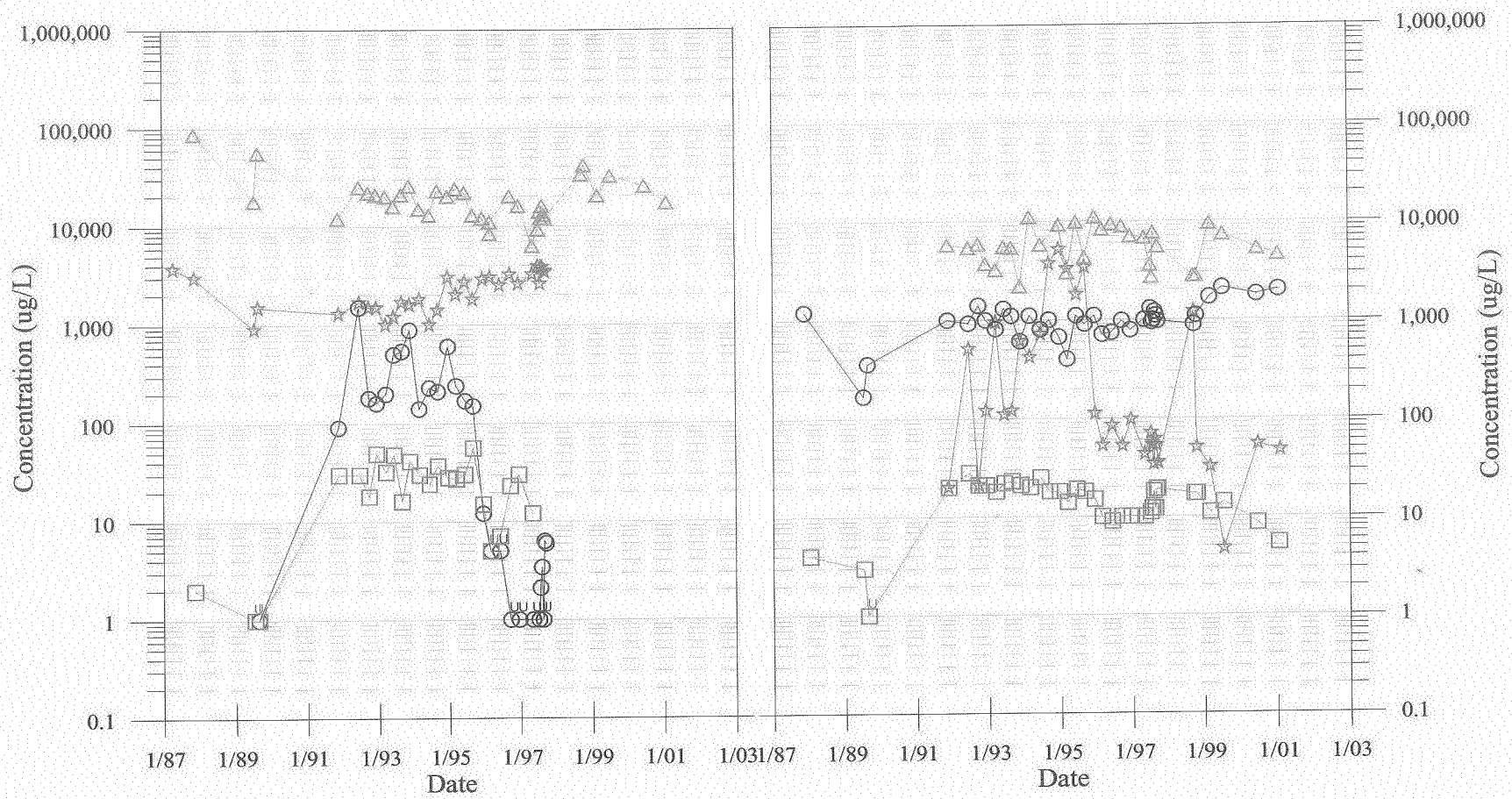
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR

BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH — ENGLAND GEOSYSTEM ENVIRONMENTAL ENGINEERING

BOE-C6-0232606



Left Graph
- WCC-1S
- WCC-1D
- WCC-2S
- WCC-3S

Right Graph
- WCC-3D
- WCC-4S
- WCC-5S
- WCC-6S

U = Not Detected

FIGURE 8a

1,1-DCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232607

Left Graph
- WCC-7S
- WCC-8S
- WCC-9S
- WCC-10S

Right Graph
- WCC-11S
- WCC-12S
- DAC-P1
- TMW-1

U = Not Detected

FIGURE 8b

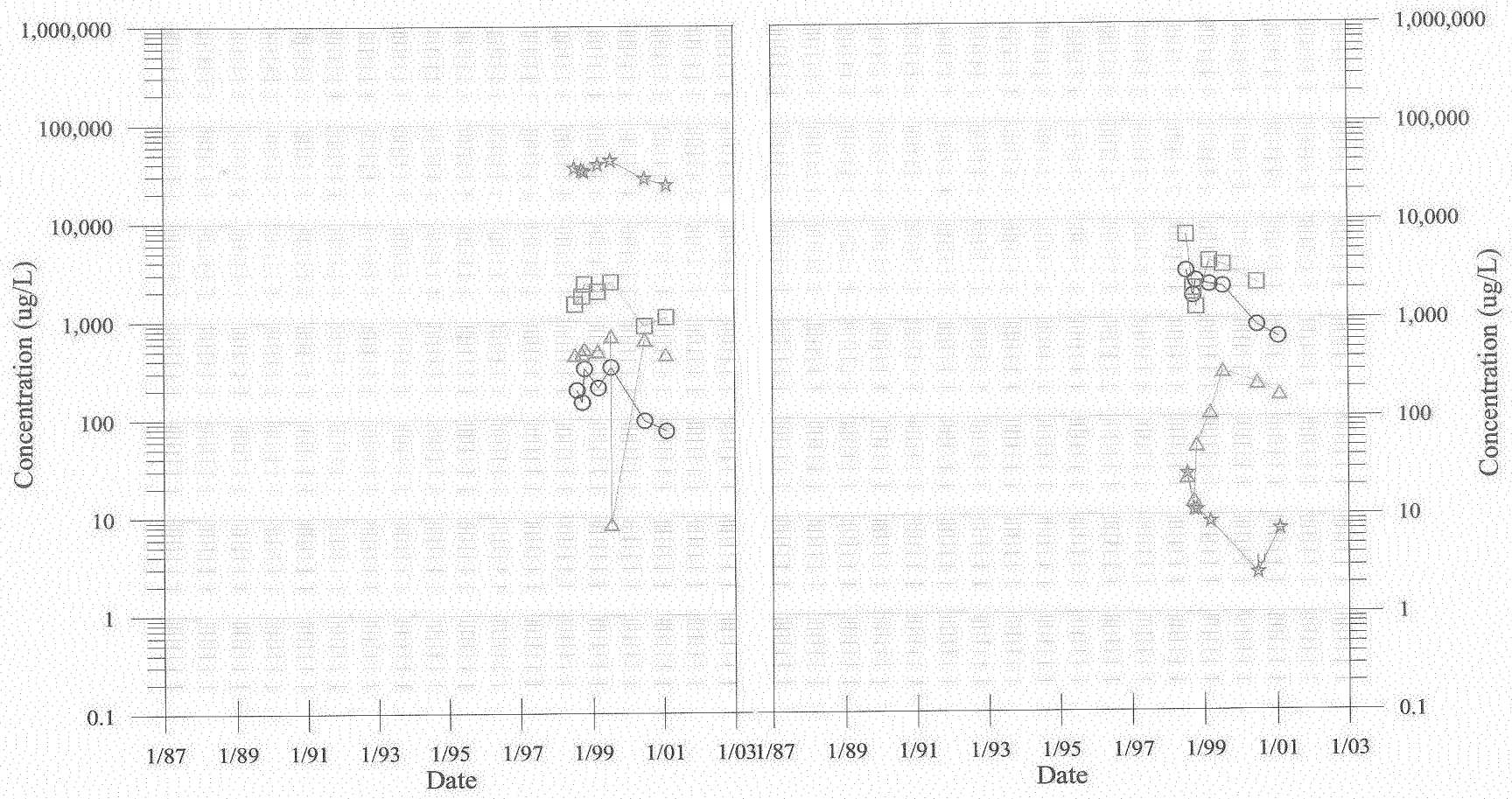
1,1-DCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232608



Left Graph
- TMW-2
- TMW-3
- TMW-4
- TMW-5

Right Graph
- TMW-6
- TMW-7
- TMW-8
- TMW-9

U = Not Detected

FIGURE 8c

1,1-DCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California

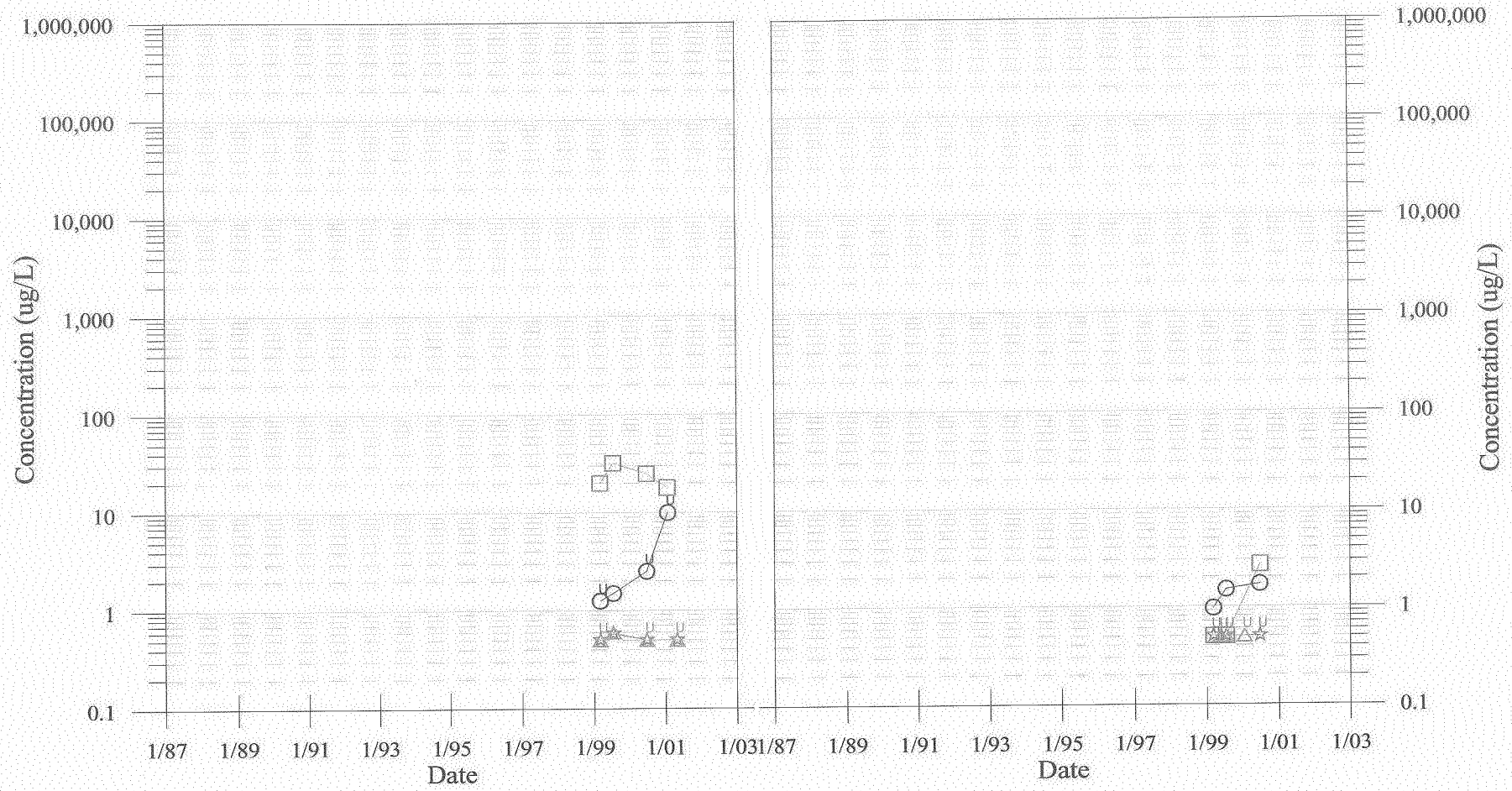
Prepared For

Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232609



U = Not Detected

FIGURE 8d

1,1-DCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California

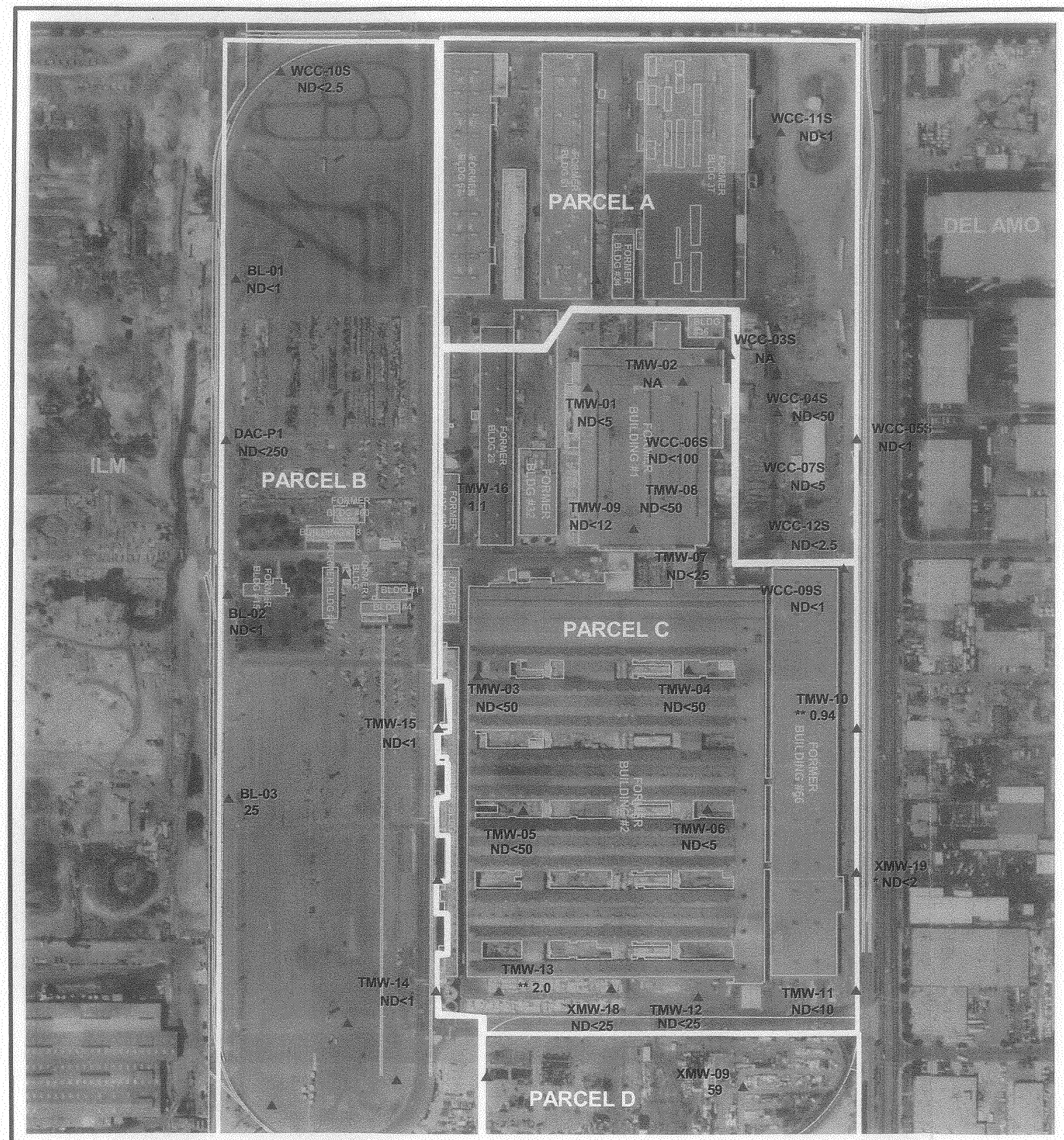
Prepared For

Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232610



N

EXPLANATION

WCC-11S ND<1 — BOEING GROUNDWATER MONITORING WELL SHOWING PCE CONCENTRATION IN µg/l

▲ — ILM GROUNDWATER MONITORING WELL

NOTES:
1. * XMW-19 DATA COLLECTED ON MARCH 21, 2001.
2. ** TMW-10 AND ** TMW-13 DATA COLLECTED ON MAY 5, 2001.

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 9

PCE DISTRIBUTION IN GROUNDWATER
ANNUAL EVENT
JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

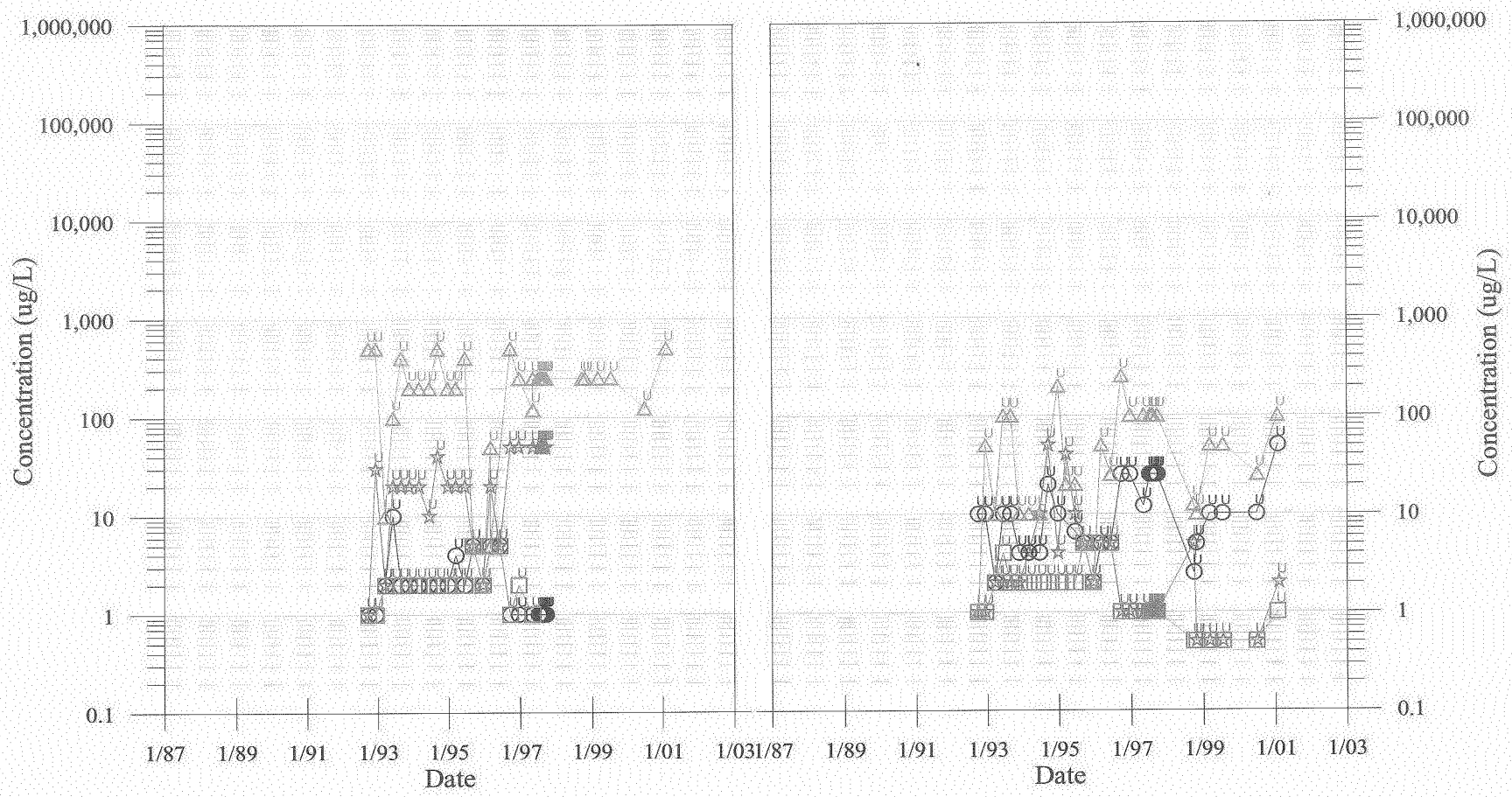
PREPARED FOR

BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH

ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232611



Left Graph
- WCC-1S
- WCC-1D
- WCC-2S
- WCC-3S

Right Graph
- WCC-3D
- WCC-4S
- WCC-5S
- WCC-6S

U = Not Detected

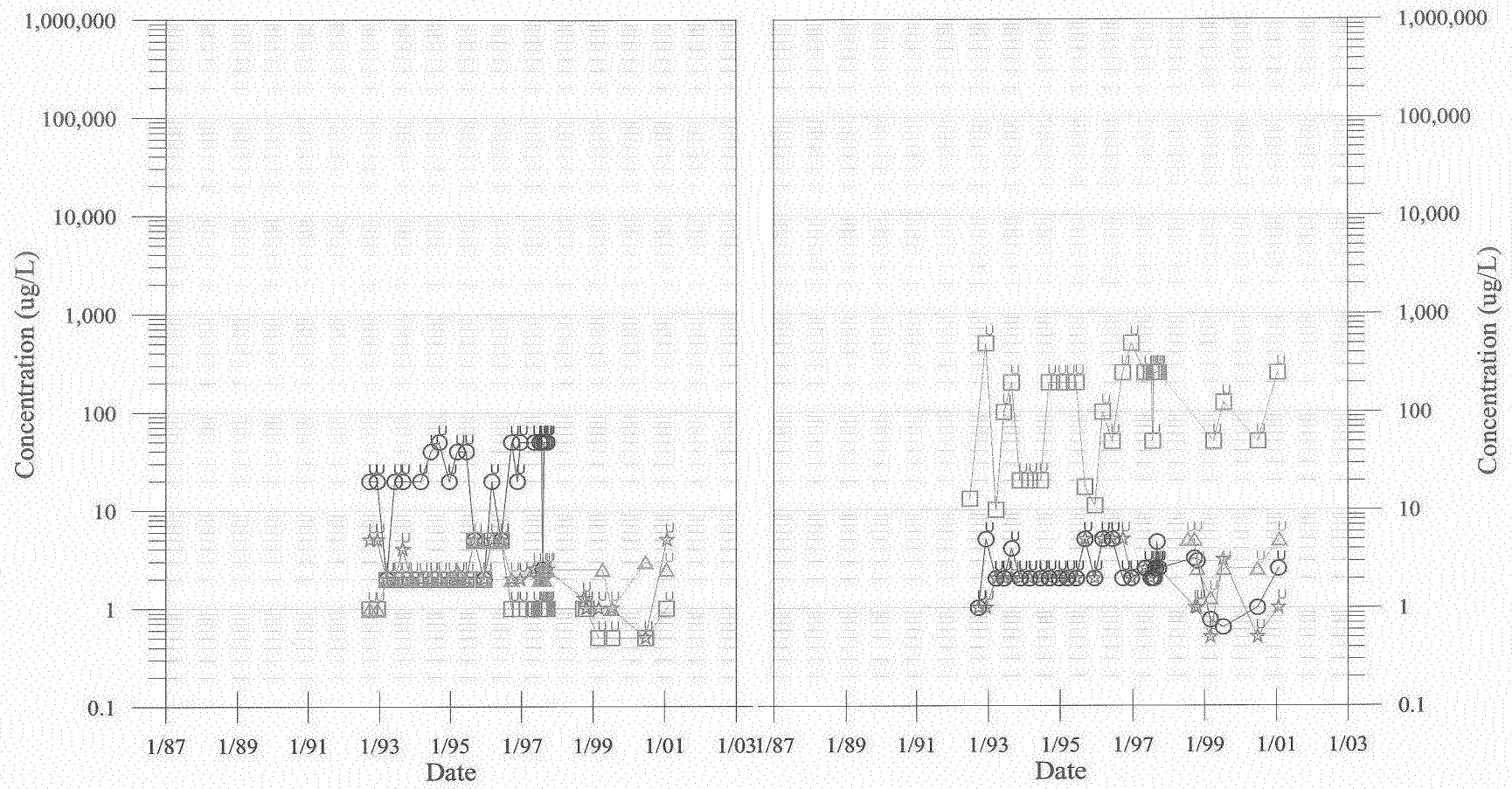
FIGURE 10a

PCE CONCENTRATION VS. TIME
Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232612



Left Graph
- WCC-7S
- WCC-8S
- WCC-9S
- WCC-10S

Right Graph
- WCC-11S
- WCC-12S
- DAC-P1
- TMW-1

U = Not Detected

FIGURE 10b

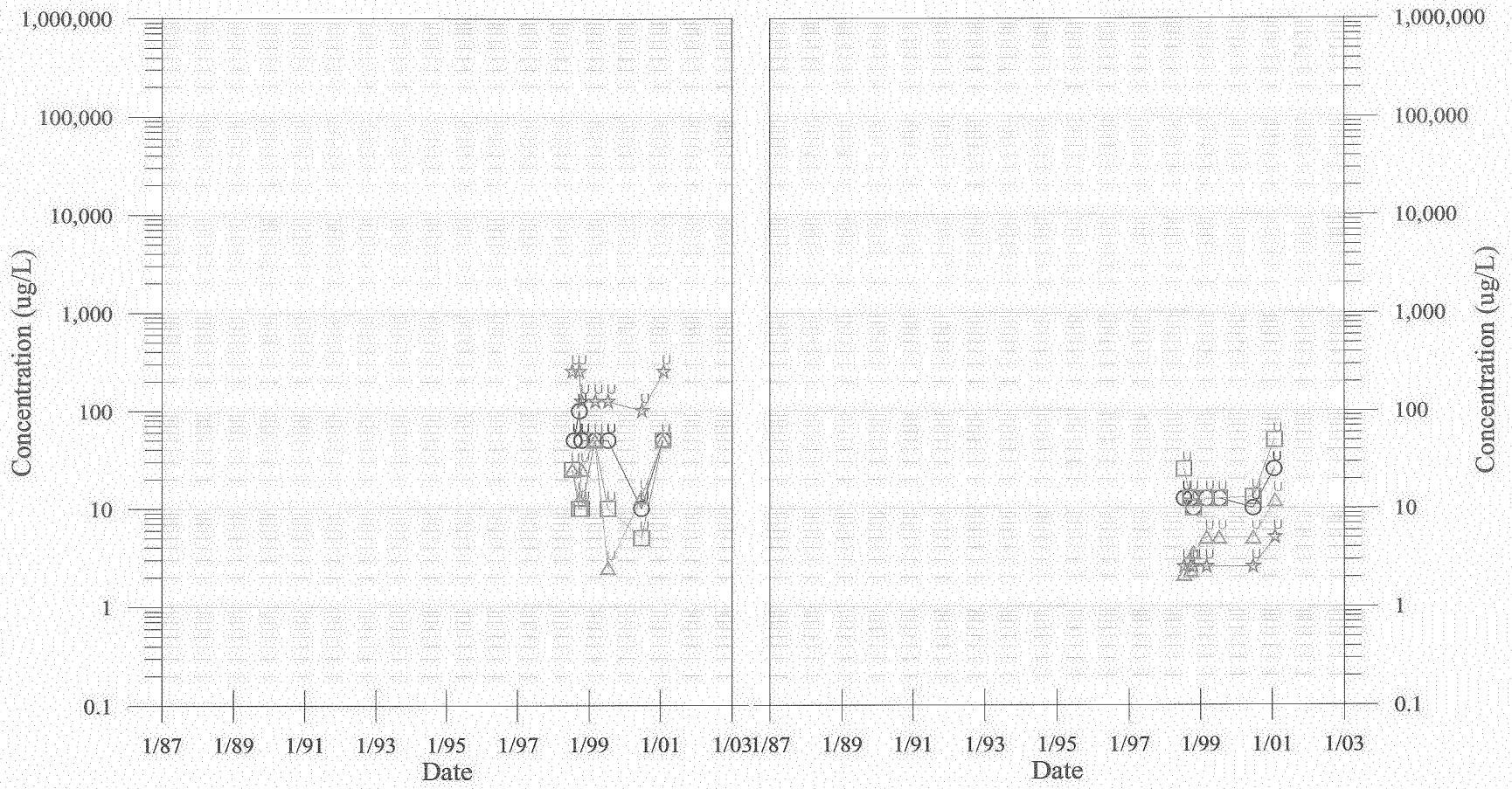
PCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232613



Left Graph
- TMW-2
- TMW-3
- TMW-4
- TMW-5

Right Graph
- TMW-6
- TMW-7
- TMW-8
- TMW-9

U = Not Detected

FIGURE 10c

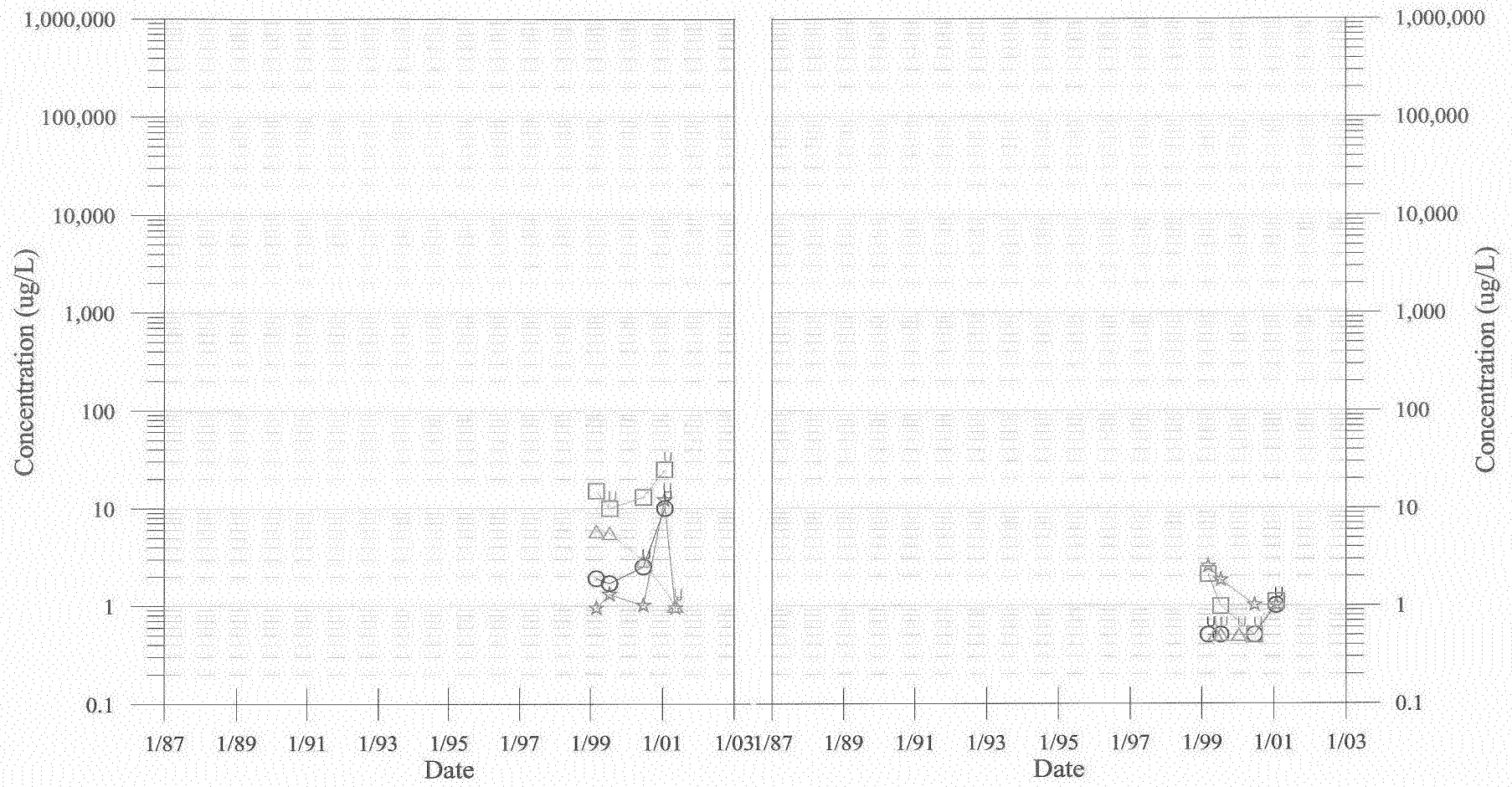
PCE CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232614



Left Graph
- TMW-10
- TMW-11
- TMW-12
- TMW-13

Right Graph
- TMW-14
- TMW-15
- TMW-16
- TMW-17

U = Not Detected

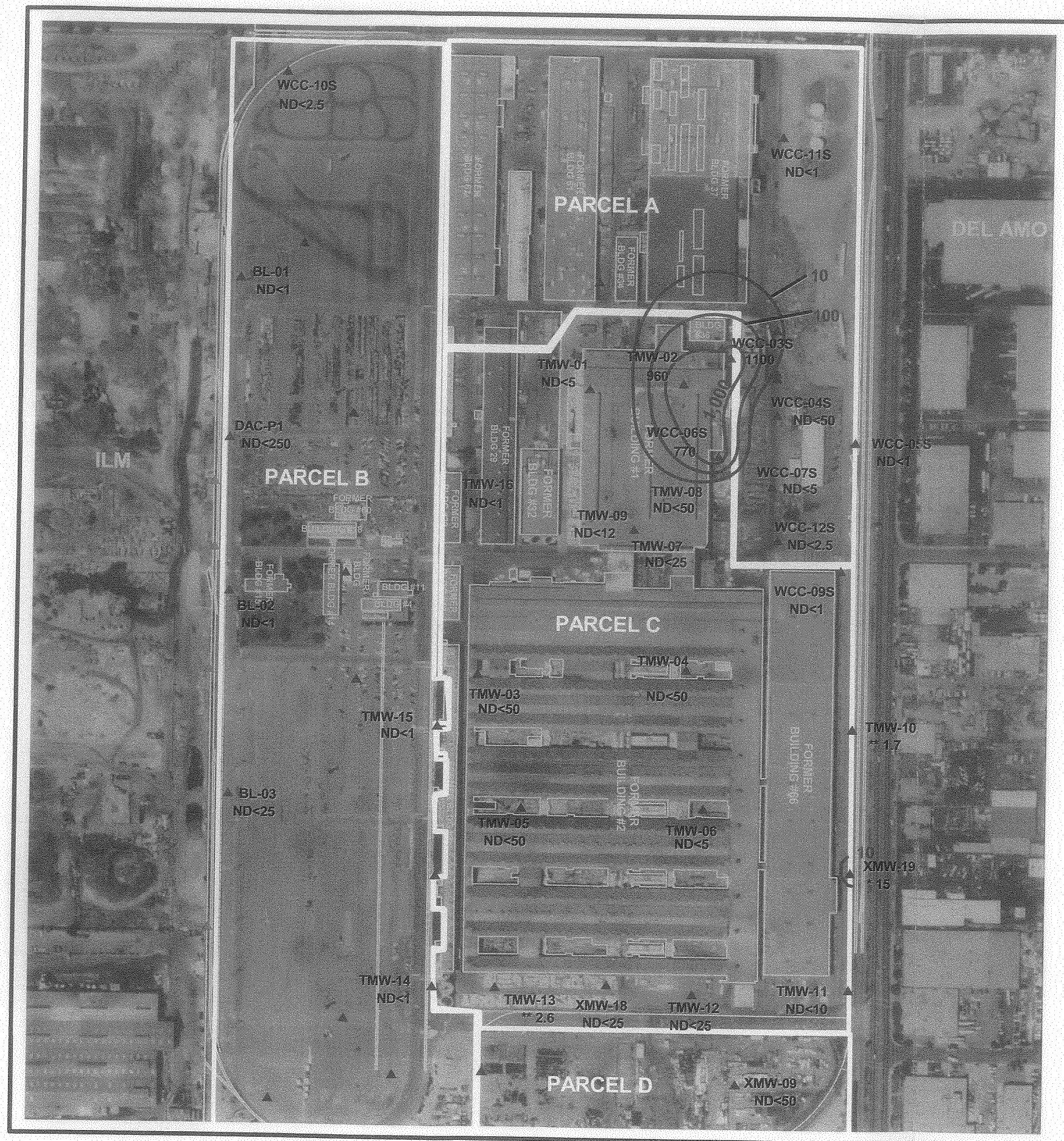
FIGURE 10d

PCE CONCENTRATION VS. TIME
Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232615



N

EXPLANATION

WCC-11S ▲ ND<1	BOEING GROUNDWATER MONITORING WELL SHOWING 1,1,1-TCA CONCENTRATION IN µg/l
▲	ILM GROUNDWATER MONITORING WELL
100	LINE OF EQUAL 1,1,1-TCA CONCENTRATION IN µg/l

NOTES:
1. ISOCONCENTRATION CONTOUR INTERVAL = VARIABLE
2. * XMW-19 DATA COLLECTED ON MARCH 21, 2001.
3. ** TMW-10 AND ** TMW-13 DATA COLLECTED ON MAY 5, 2001.

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 11

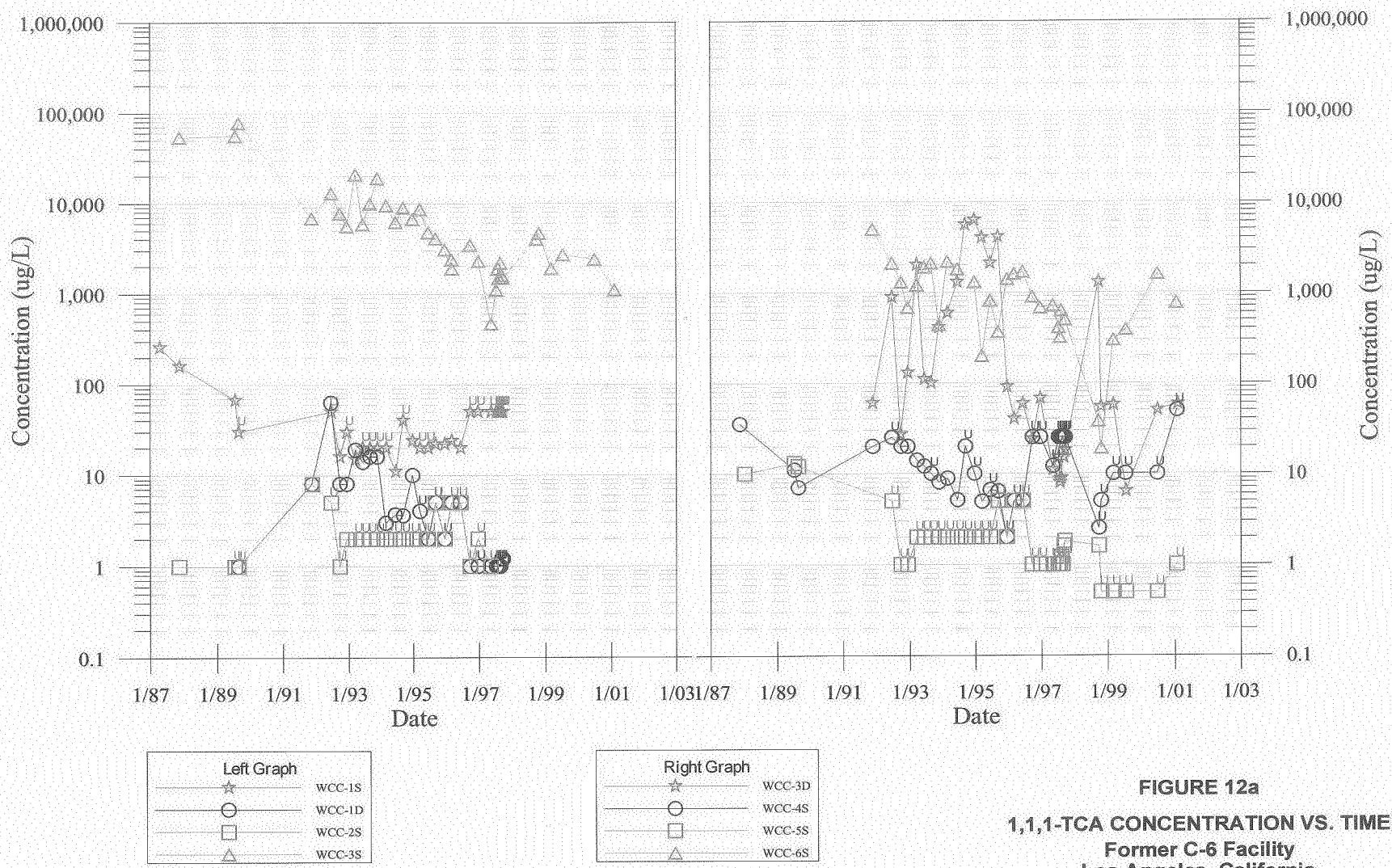
1,1,1-TCA DISTRIBUTION IN GROUNDWATER ANNUAL EVENT JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR
BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH
ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232616



U = Not Detected

FIGURE 12a

1,1,1-TCA CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California

Prepared For

Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232617

Left Graph
- WCC-7S
- WCC-8S
- WCC-9S
- WCC-10S

Right Graph
- WCC-11S
- WCC-12S
- DAC-P1
- TMW-1

U = Not Detected

FIGURE 12b

1,1,1-TCA CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California

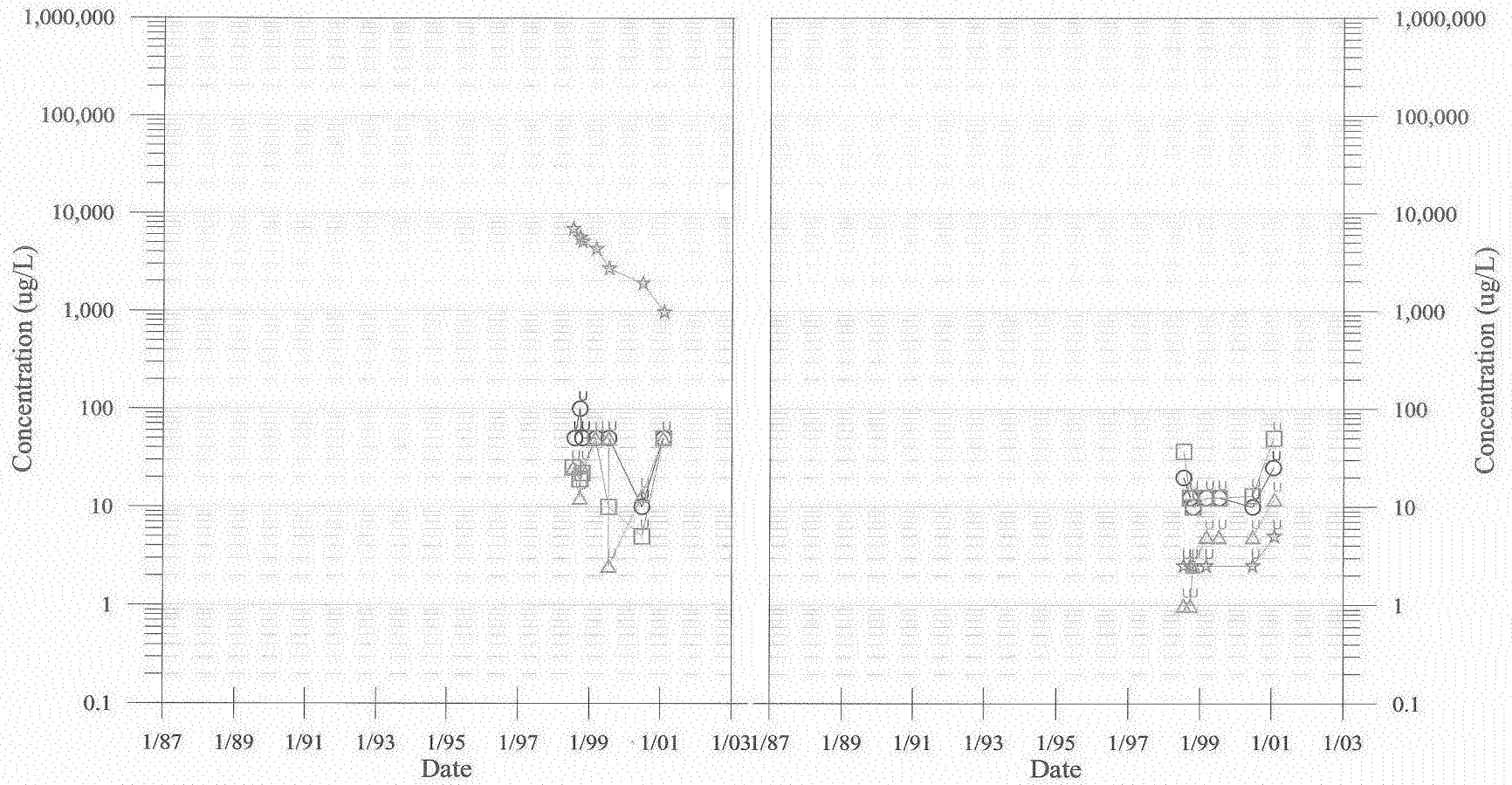
Prepared For

Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232618



Left Graph
- TMW-2
- TMW-3
- TMW-4
- TMW-5

Right Graph
- TMW-6
- TMW-7
- TMW-8
- TMW-9

U = Not Detected

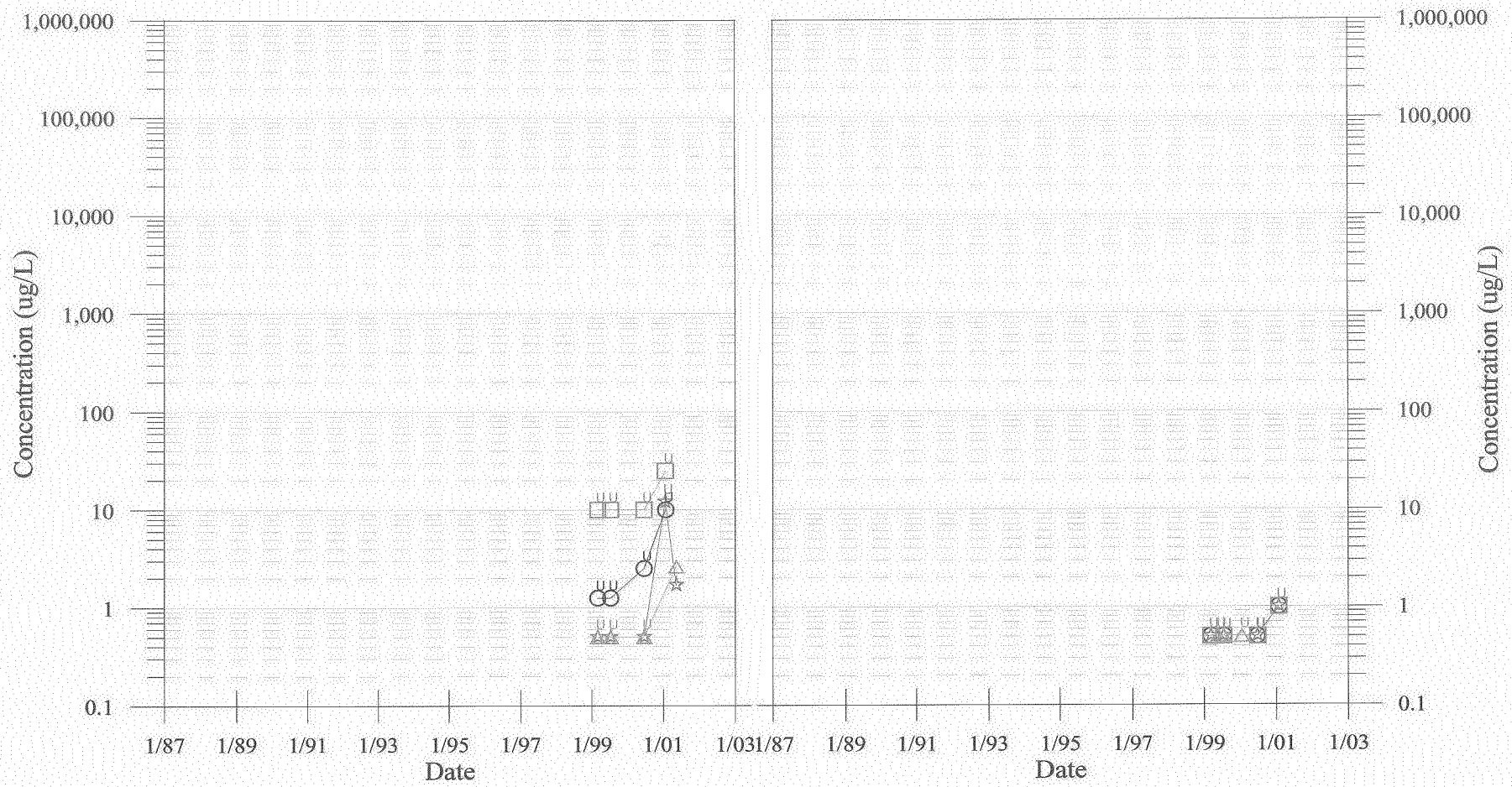
FIGURE 12c

1,1,1-TCA CONCENTRATION VS. TIME
Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232619



U = Not Detected

FIGURE 12d

1,1,1-TCA CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California

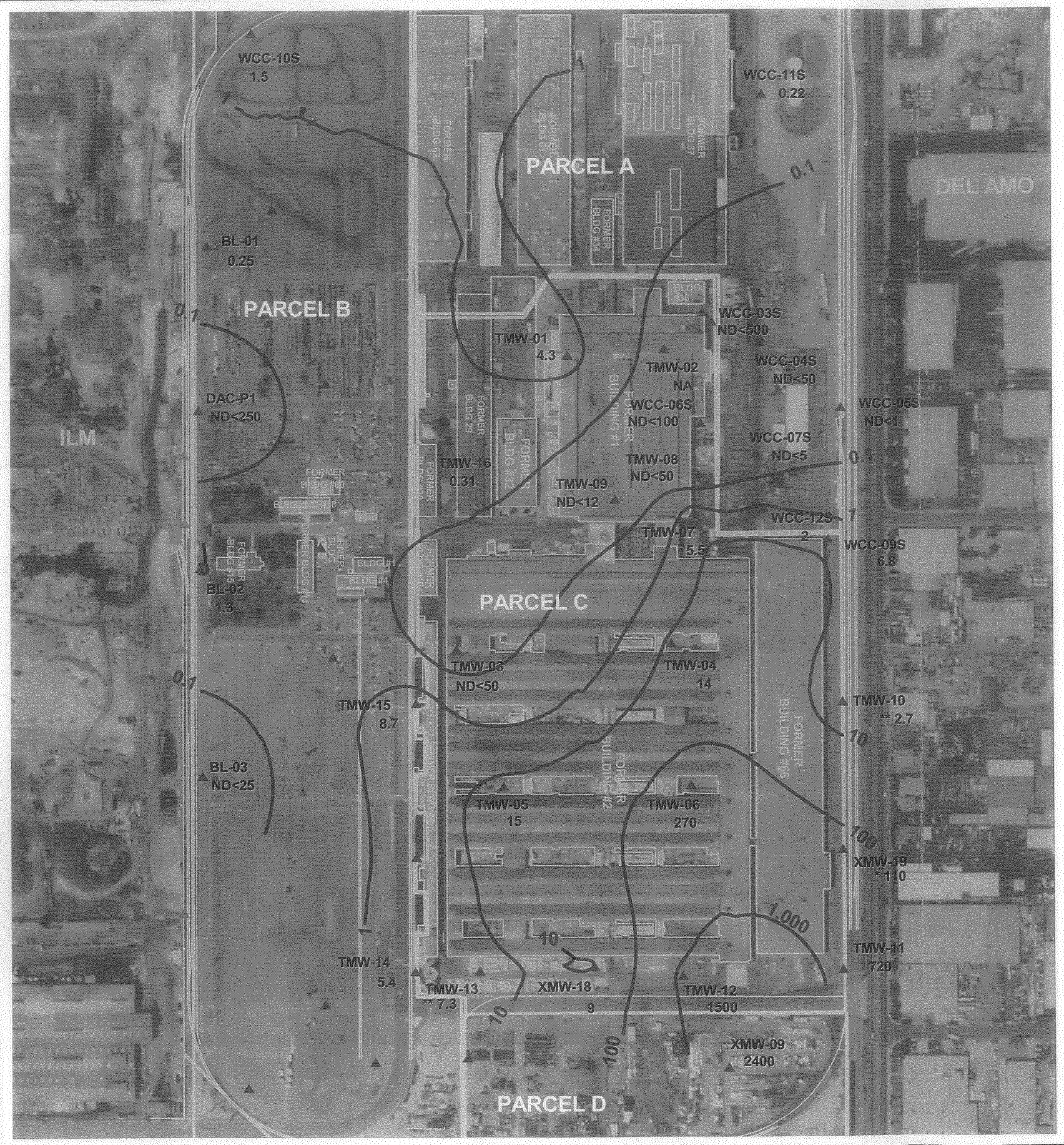
Prepared For

Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232620



N

EXPLANATION

WCC-11S ▲ 0.22	BOEING GROUNDWATER MONITORING WELL SHOWING CHLOROFORM CONCENTRATION IN µg/l
▲	ILM GROUNDWATER MONITORING WELL
100	LINE OF EQUAL CHLOROFORM CONCENTRATION IN µg/l

NOTES:
1. ISOCONCENTRATION CONTOUR INTERVAL = VARIABLE
2. * XMW-19 DATA COLLECTED ON MARCH 21, 2001.
3. ** TMW-10 AND ** TMW-13 DATA COLLECTED ON MAY 5, 2001.

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 13

CHLOROFORM DISTRIBUTION IN GROUNDWATER
ANNUAL EVENT
JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

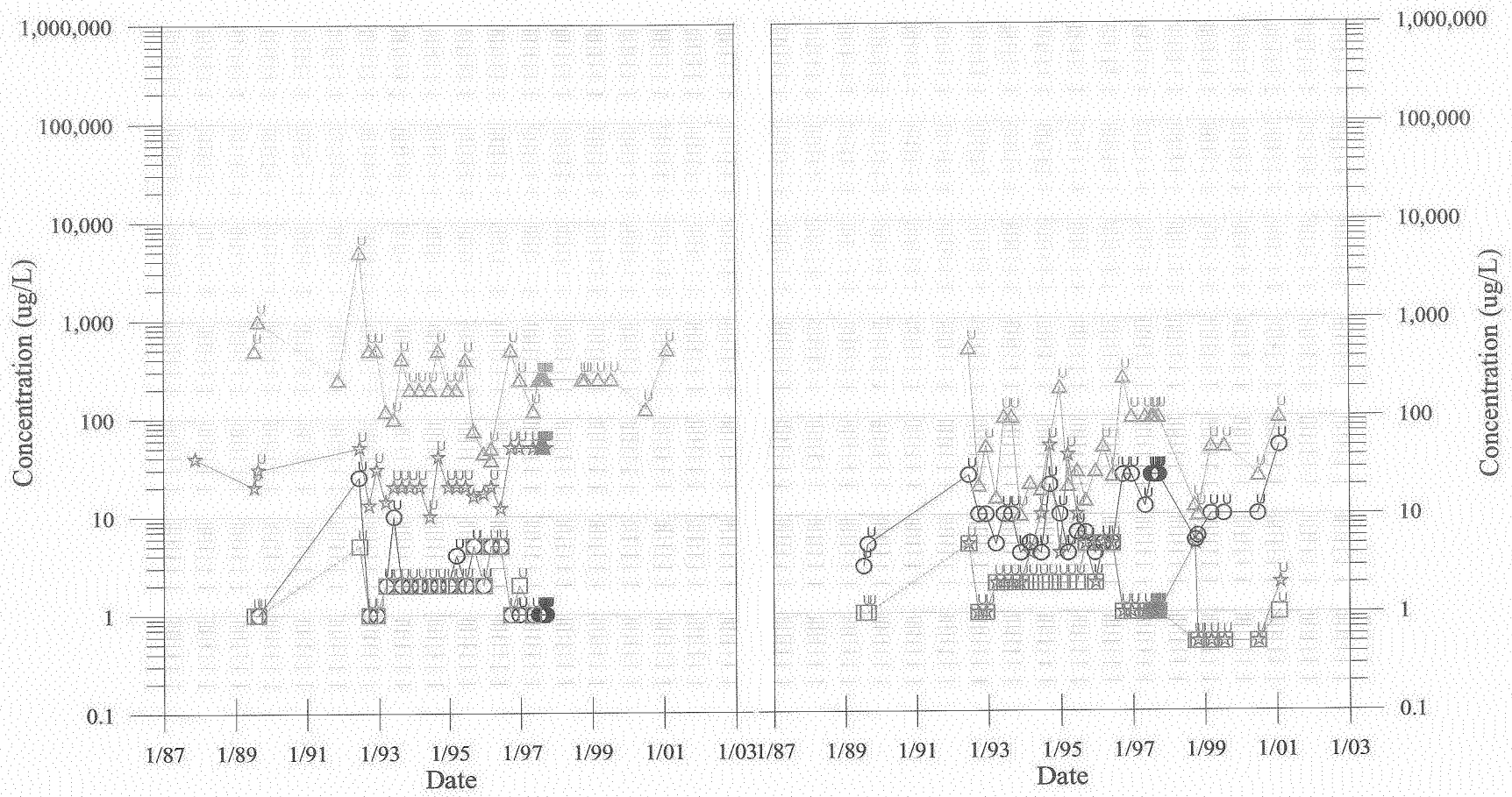
PREPARED FOR

BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH

ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232621



Left Graph
- WCC-1S
- WCC-1D
- WCC-2S
- WCC-3S

Right Graph
- WCC-3D
- WCC-4S
- WCC-5S
- WCC-6S

U = Not Detected

FIGURE 14a

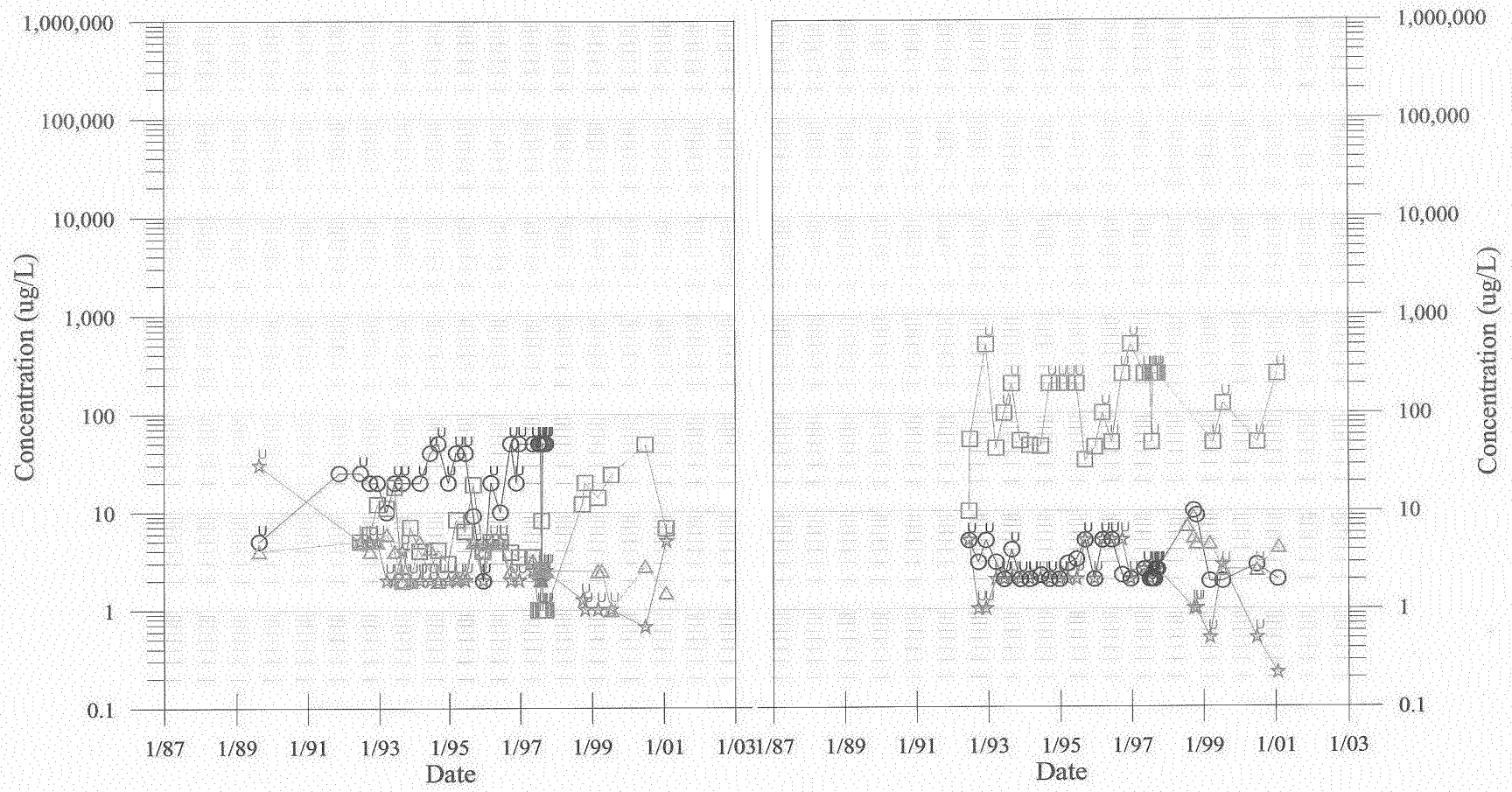
CHLOROFORM CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232622



Left Graph
- WCC-7S
- WCC-8S
- WCC-9S
- WCC-10S

Right Graph
- WCC-11S
- WCC-12S
- DAC-P1
- TMW-1

U = Not Detected

FIGURE 14b

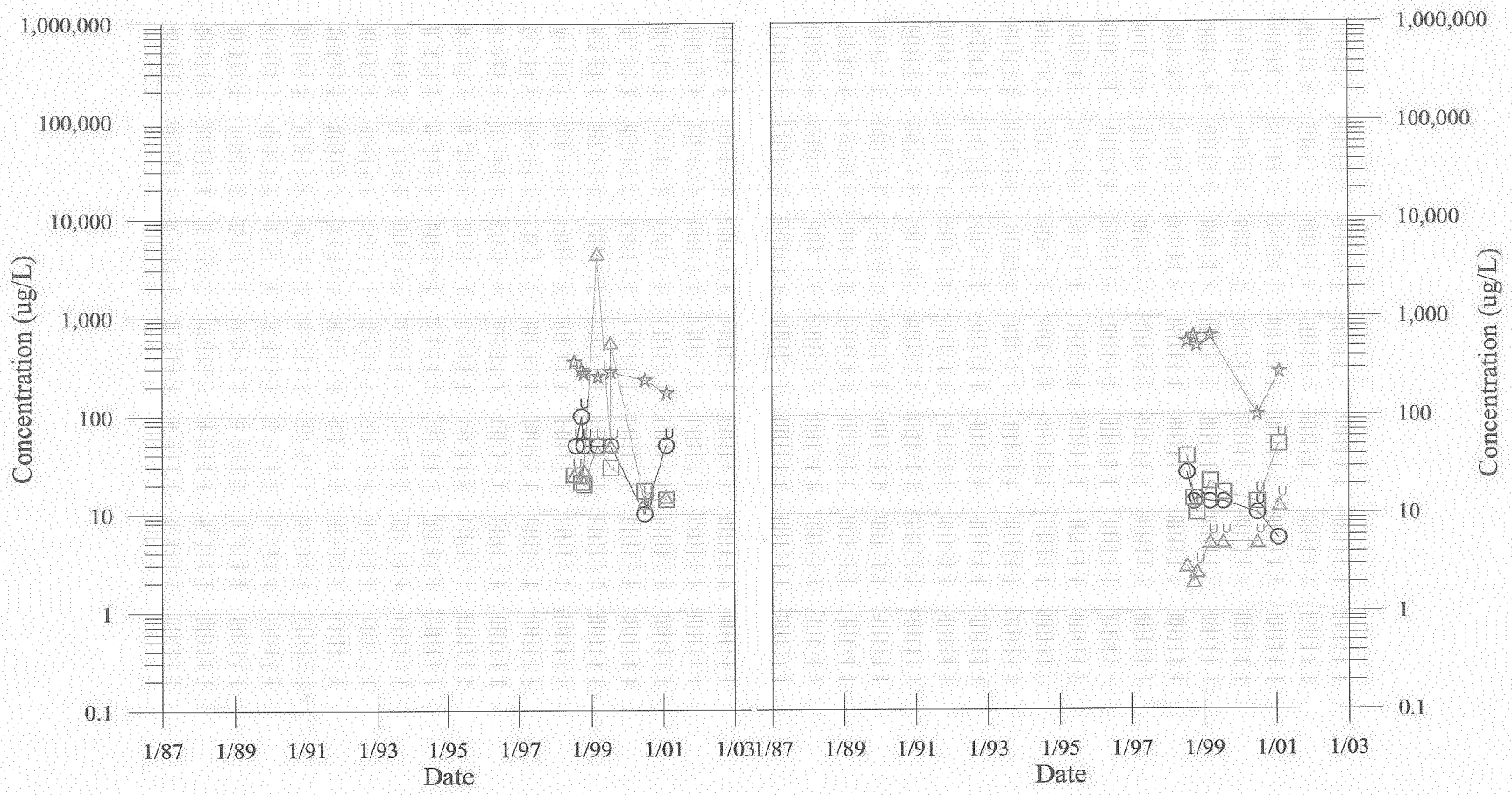
CHLOROFORM CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232623



Left Graph
- TMW-2
- TMW-3
- TMW-4
- TMW-5

Right Graph
- TMW-6
- TMW-7
- TMW-8
- TMW-9

U = Not Detected

FIGURE 14c

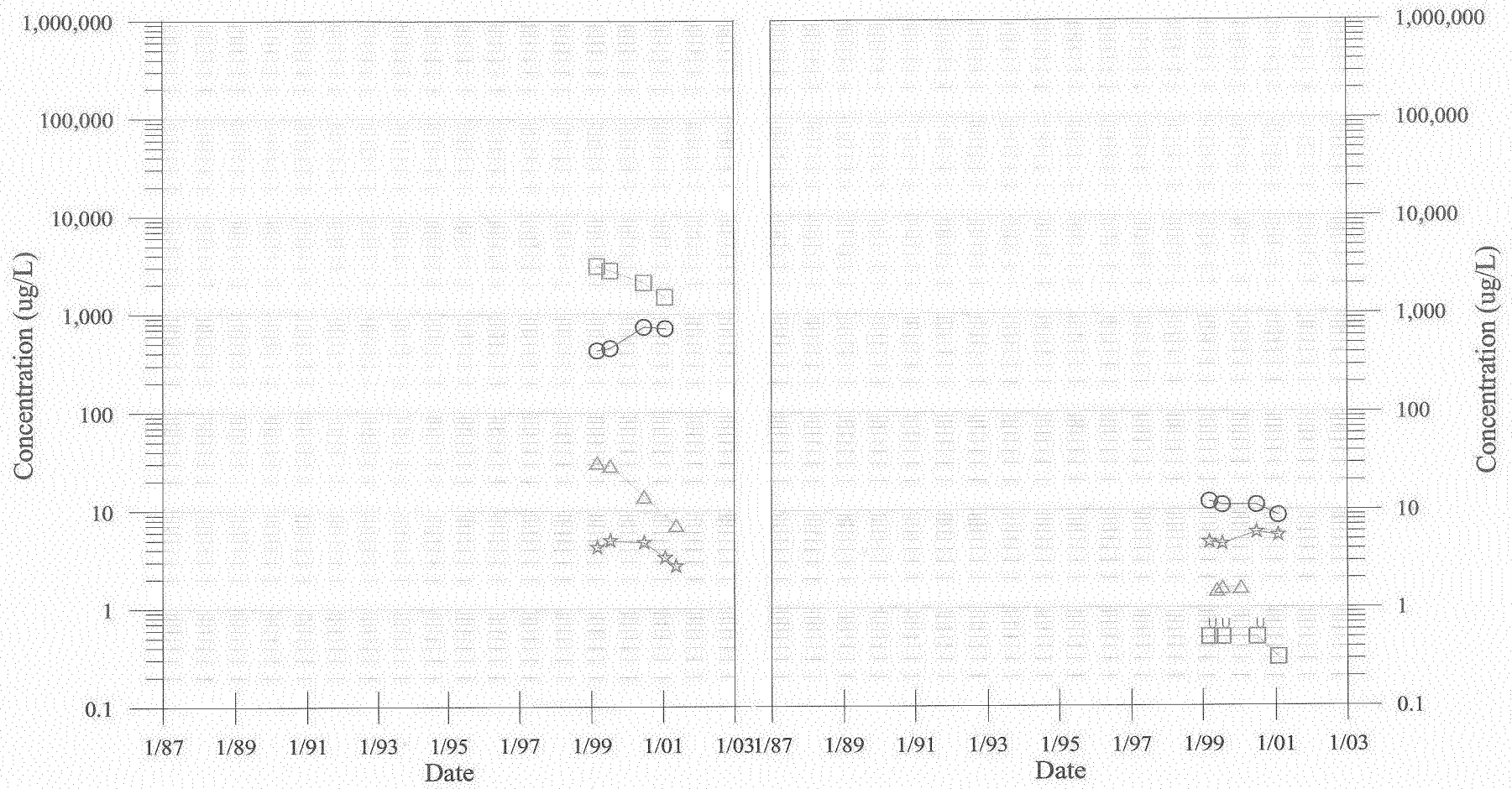
CHLOROFORM CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California
Prepared For
Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232624



Left Graph
- TMW-10
- TMW-11
- TMW-12
- TMW-13

Right Graph
- TMW-14
- TMW-15
- TMW-16
- TMW-17

U = Not Detected

FIGURE 14d

CHLOROFORM CONCENTRATION VS. TIME

Former C-6 Facility
Los Angeles, California

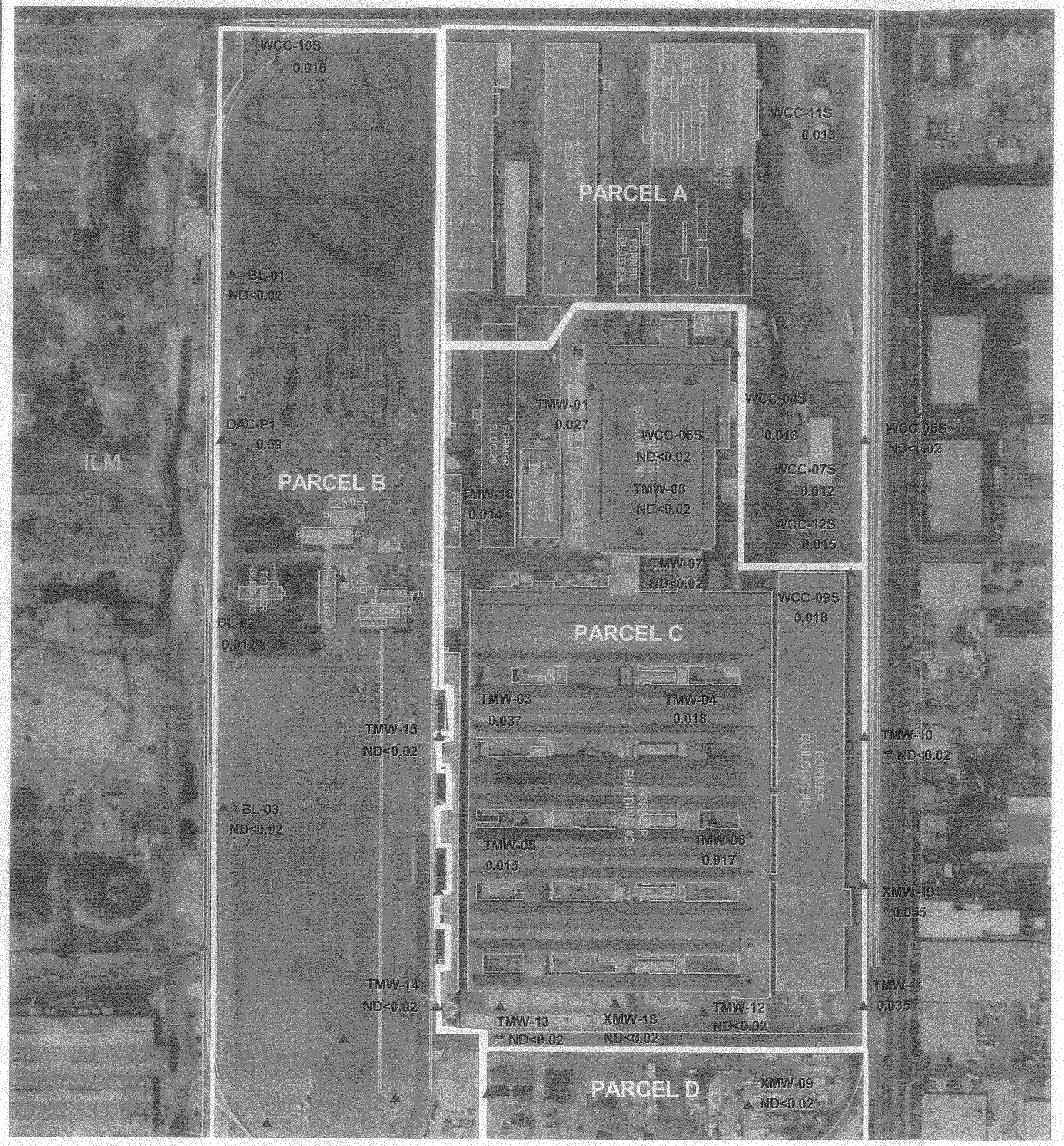
Prepared For

Boeing Realty Corporation
Long Beach, California

HALEY & ALDRICH

ENGLAND GEOSYSTEM

BOE-C6-0232625



N

EXPLANATION

WCC-11S ▲ 0.013 — BOEING GROUNDWATER MONITORING WELL SHOWING HEXAVALENT CHROMIUM CONCENTRATION IN MG/L

▲ — ILM GROUNDWATER MONITORING WELL

NOTES:
1. * XMW-19 DATA COLLECTED ON MARCH 21, 2001.
2. ** TMW-10 AND ** TMW-13 DATA COLLECTED ON MAY 5, 2001.

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 15

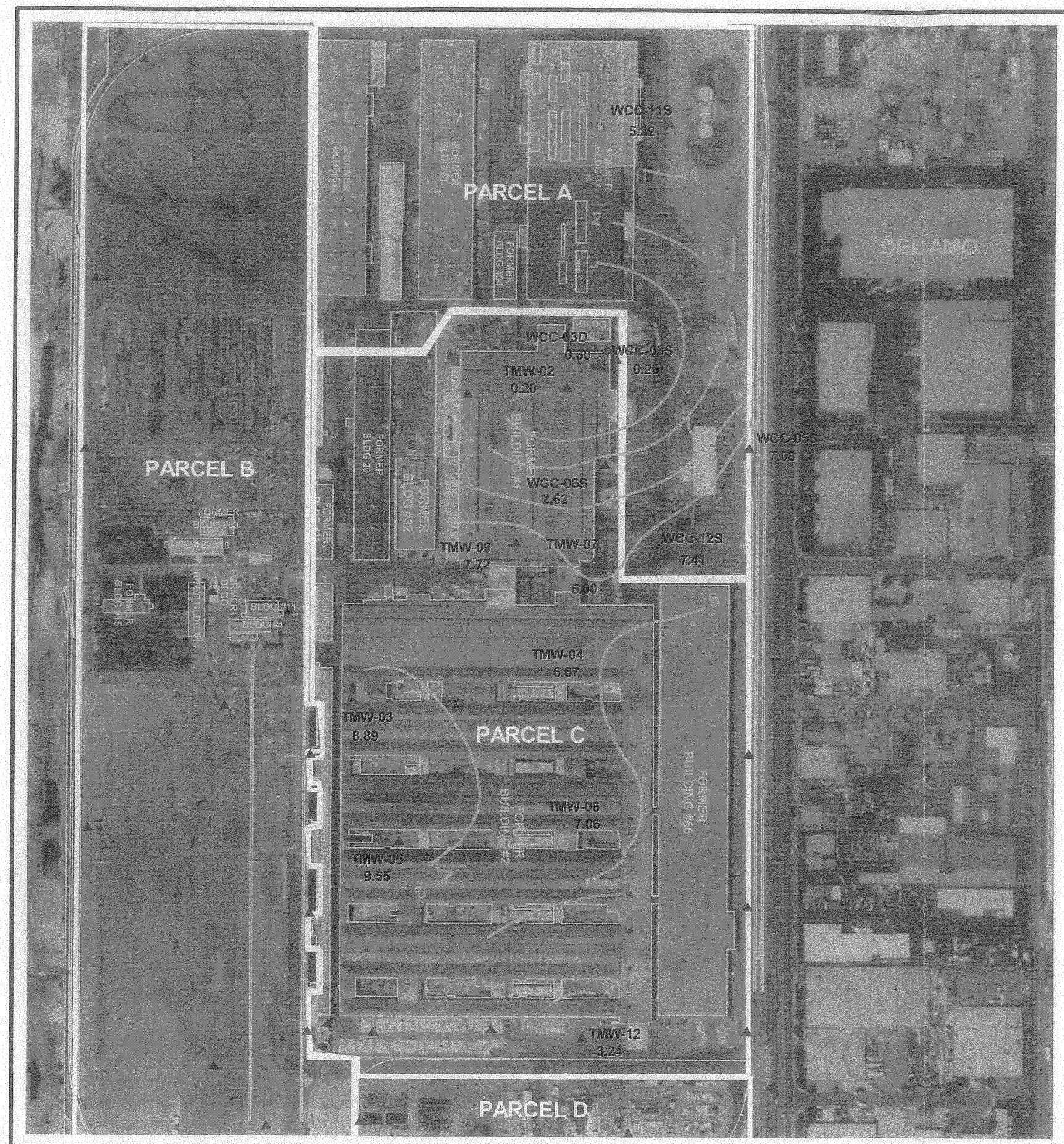
HEXAVALENT CHROMIUM DISTRIBUTION IN GROUNDWATER ANNUAL EVENT JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR
BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH
ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232626



N

EXPLANATION

WCC-11S ▲ 5.22	BOEING GROUNDWATER MONITORING WELL SHOWING DO CONCENTRATION IN MG/L
▲	ILM GROUNDWATER MONITORING WELL
6	LINE OF EQUAL DO CONCENTRATION IN MG/L

NOTE:
ISOCONCENTRATION CONTOUR INTERVAL = VARIABLE

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 16

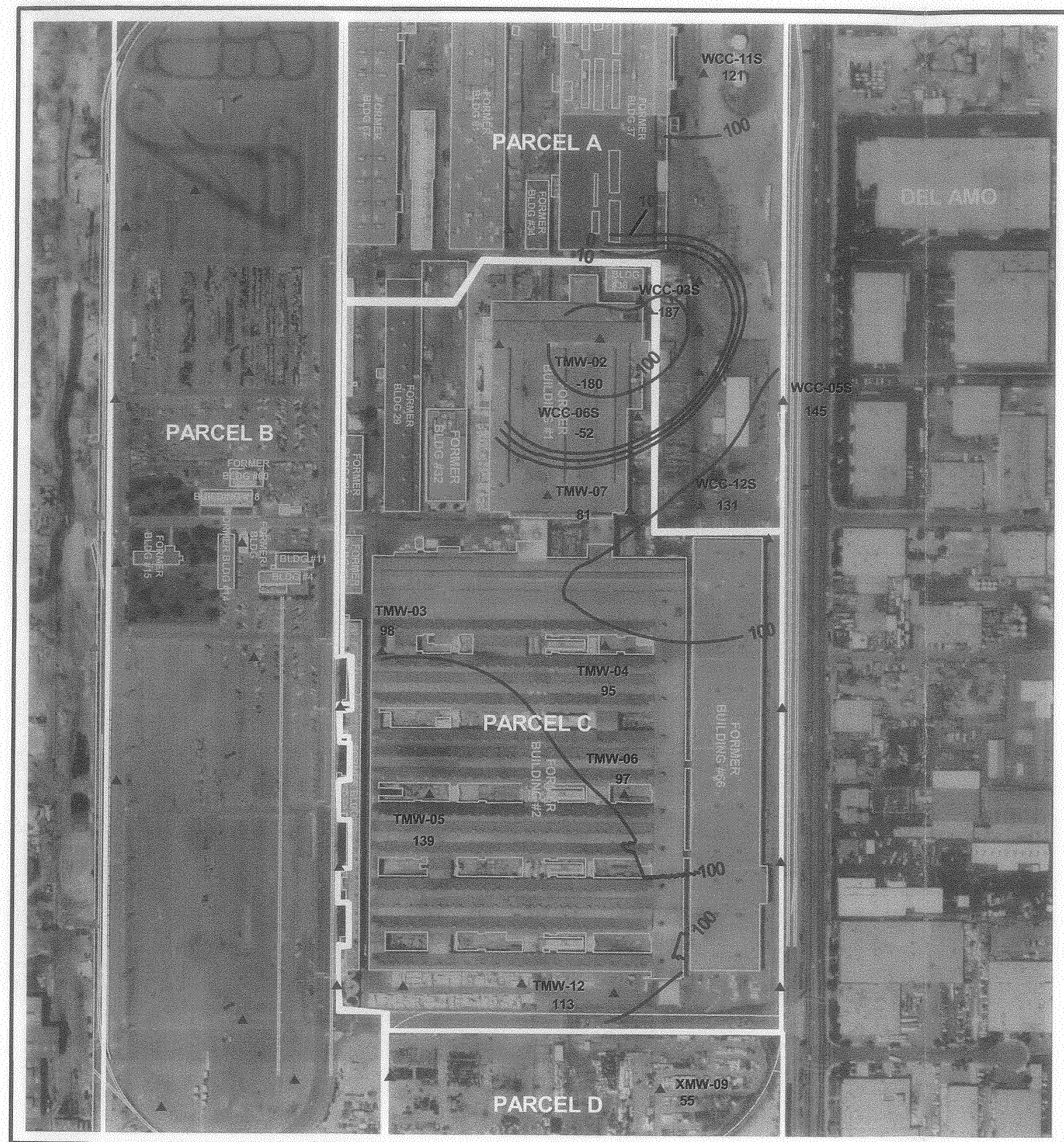
DISSOLVED OXYGEN IN SHALLOW GROUNDWATER ANNUAL EVENT JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR
BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH
ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

BOE-C6-0232627



N

EXPLANATION

WCC-11S ▲ 121	BOEING GROUNDWATER MONITORING WELL SHOWING ORP IN mV
▲	ILM GROUNDWATER MONITORING WELL
100	LINE OF EQUAL ORP CONCENTRATION IN mV

NOTE:
ISOCONCENTRATION CONTOUR INTERVAL = VARIABLE

REFERENCE:
AERIAL PHOTO PROVIDED BY GLOBE EXPLORER AND ORTHORECTIFIED TO NAD 83 CALIFORNIA STATE PLANE ZONE 5 IN FEET.

0 200 400 Feet

APPROXIMATE HORIZONTAL SCALE

FIGURE 17

OXIDATION REDUCTION POTENTIAL IN SHALLOW GROUNDWATER ANNUAL EVENT JANUARY/FEBRUARY 2001

FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

PREPARED FOR
BOEING REALTY CORPORATION
LONG BEACH, CALIFORNIA

HALEY & ALDRICH
ENGLAND GEOSYSTEM ENVIRONMENTAL ENGINEERING

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