FIGURES

Explanation

● 39 Soil Vapor Wells

400 200 0 400

SCALE IN FEET

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

LOCATION OF DEEP SOIL VAPOR MONITORING WELLS SAMPLED

FIGURE 1-1

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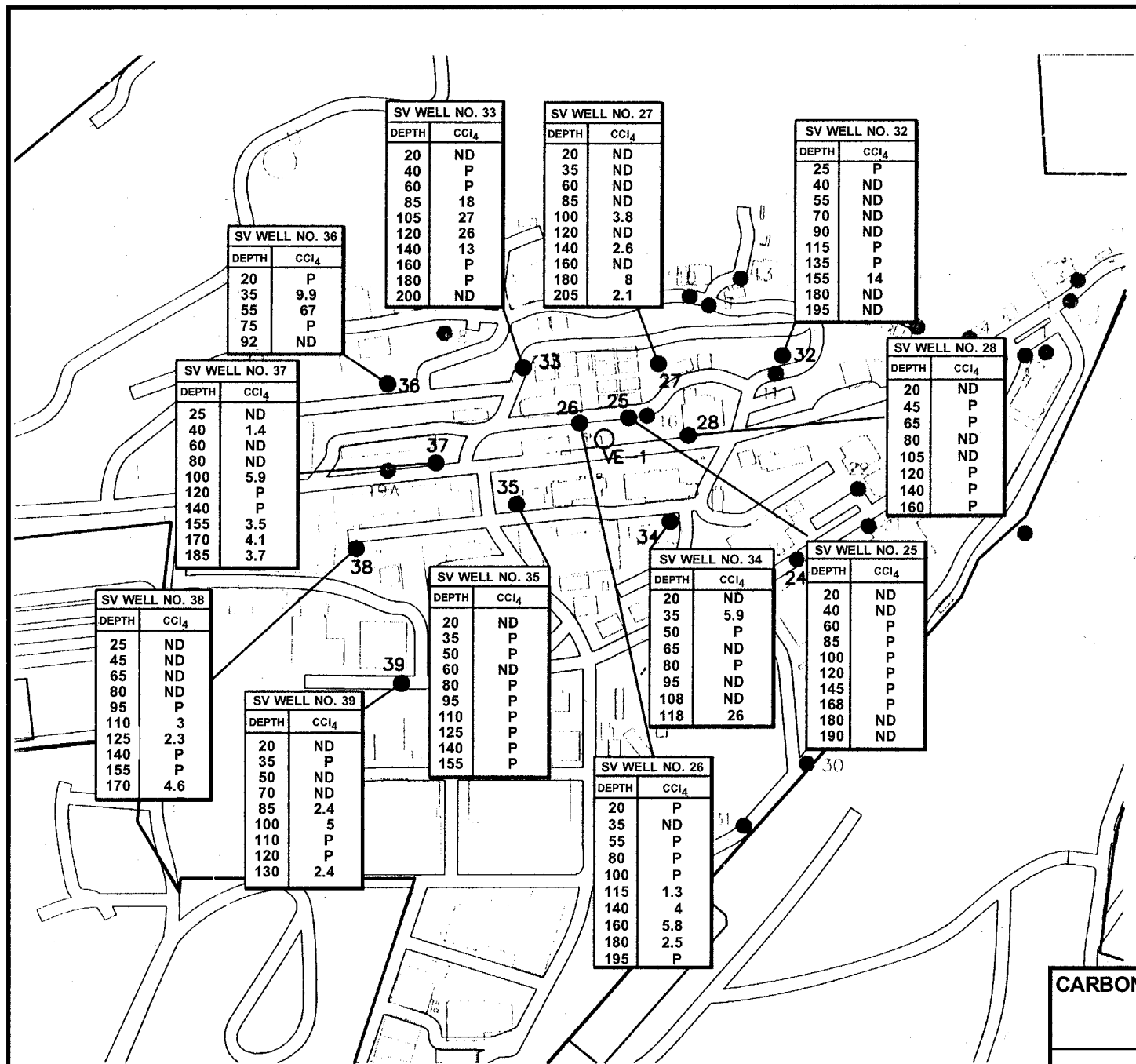

SV WELL NO. 33

DEPTH	CCl_4
20	ND
40	P
60	P
85	18
105	27
120	26
140	13
160	P
180	P
200	ND

SV WELL NO. 27

DEPTH	CCl_4
20	ND
35	ND
60	ND
85	ND
100	3.8
120	ND
140	2.6
160	ND
180	8
205	2.1

SV WELL NO. 32

DEPTH	CCl_4
25	P
40	ND
55	ND
70	ND
90	ND
115	P
135	P
155	14
180	ND
195	ND

SV WELL NO. 36

DEPTH	CCl_4
20	P
35	9.9
55	67
75	P
92	ND

SV WELL NO. 37

DEPTH	CCl_4
25	ND
40	1.4
60	ND
80	ND
100	5.9
120	P
140	P
155	3.5
170	4.1
185	3.7

SV WELL NO. 28

DEPTH	CCl_4
20	ND
45	P
65	P
80	ND
105	ND
120	P
140	P
160	P

SV WELL NO. 38

DEPTH	CCl_4
25	ND
45	ND
65	ND
80	ND
95	P
110	3
125	2.3
140	P
155	P
170	4.6

SV WELL NO. 35

DEPTH	CCl_4
20	ND
35	P
50	P
60	ND
80	P
95	P
110	P
125	P
140	P
155	P

SV WELL NO. 34

DEPTH	CCl_4
20	ND
35	5.9
50	P
65	ND
80	P
95	ND
108	ND
118	26

SV WELL NO. 25

DEPTH	CCl_4
20	ND
40	ND
60	P
85	P
100	P
120	P
145	P
168	P
180	ND
190	ND

SV WELL NO. 39

DEPTH	CCl_4
20	ND
35	P
50	ND
70	ND
85	2.4
100	5
110	P
120	P
130	2.4

SV WELL NO. 26

DEPTH	CCl_4
20	P
35	ND
55	P
80	P
100	P
115	1.3
140	4
160	5.8
180	2.5
195	P

Explanation

● 39	Soil Vapor Wells Sampled
○ VE-1	Vapor Extraction Well
CCl_4	Carbon Tetrachloride
ND	Non-Detect @ Laboratory Detection Limit of 1.0 $\mu g/L$-Vapor
P	Sample Port Plugged: No Sample Collected
W	Sample Port Waterlogged; No Sample Collected

NOTE:

Concentrations in $\mu g/L$-Vapor

N

400 200 0 400

SCALE IN FEET

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

CARBON TETRACHLORIDE CONCENTRATIONS AT DEPTH

FIGURE 3-1

Jet Propulsion Laboratory
Pasadena, California

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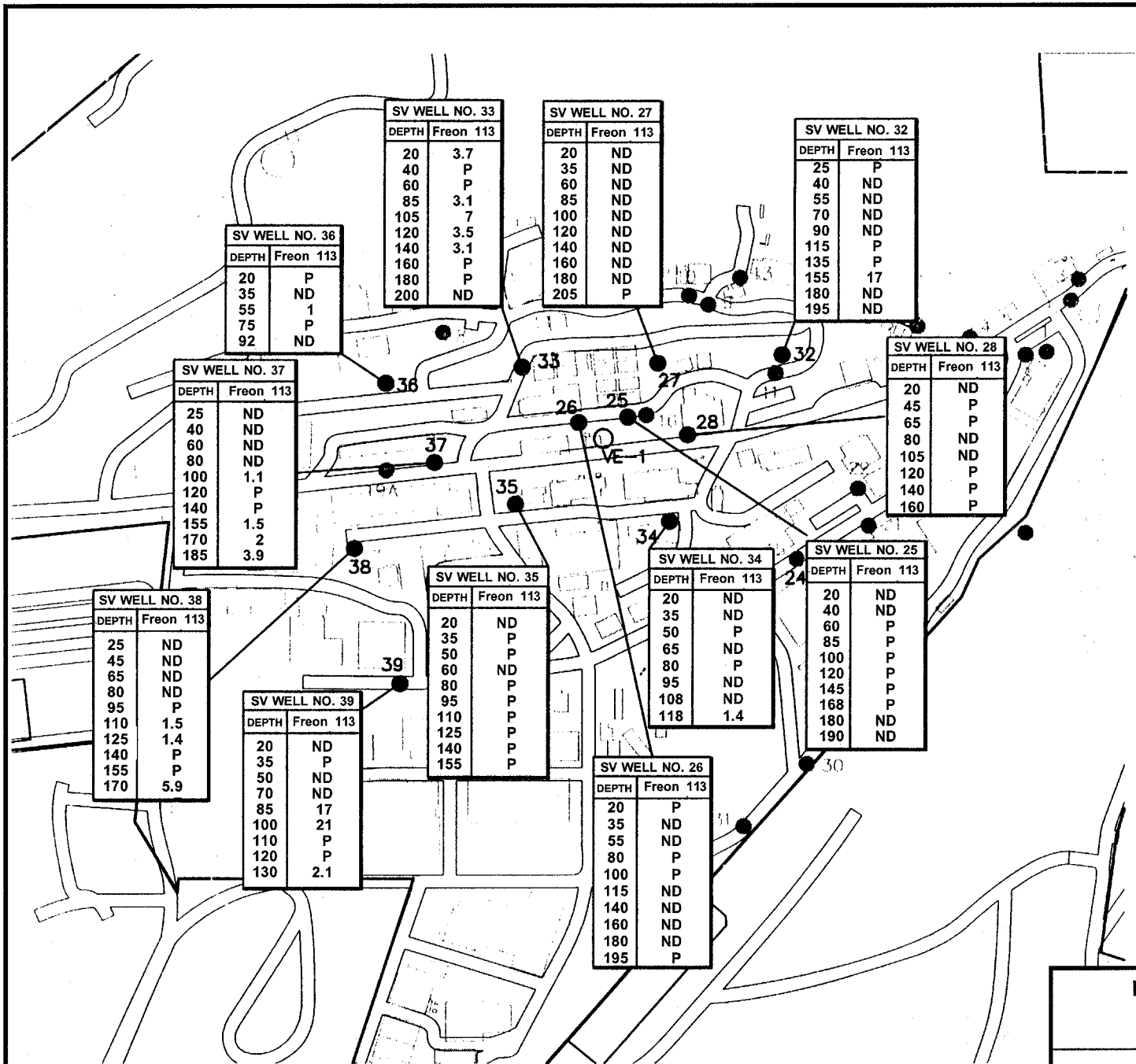

SV WELL NO. 33	
DEPTH	Freon 113
20	3.7
40	P
60	P
85	3.1
105	7
120	3.5
140	3.1
160	P
180	P
200	ND

SV WELL NO. 27	
DEPTH	Freon 113
20	ND
35	ND
60	ND
85	ND
100	ND
120	ND
140	ND
160	ND
180	ND
205	P

SV WELL NO. 32	
DEPTH	Freon 113
25	P
40	ND
55	ND
70	ND
90	ND
115	P
135	P
155	17
180	ND
195	ND

SV WELL NO. 36	
DEPTH	Freon 113
20	P
35	ND
55	1
75	P
92	ND

SV WELL NO. 37	
DEPTH	Freon 113
25	ND
40	ND
60	ND
80	ND
100	1.1
120	P
140	P
155	1.5
170	2
185	3.9

SV WELL NO. 28	
DEPTH	Freon 113
20	ND
45	P
65	P
80	ND
105	ND
120	P
140	P
160	P

SV WELL NO. 38	
DEPTH	Freon 113
25	ND
45	ND
65	ND
80	ND
95	P
110	1.5
125	1.4
140	P
155	P
170	5.9

SV WELL NO. 35	
DEPTH	Freon 113
20	ND
35	P
50	P
60	ND
80	P
95	P
110	P
125	P
140	P
155	P

SV WELL NO. 34	
DEPTH	Freon 113
20	ND
35	ND
50	P
65	ND
80	P
95	ND
108	ND
118	1.4

SV WELL NO. 25	
DEPTH	Freon 113
20	ND
40	ND
60	P
85	P
100	P
120	P
145	P
168	P
180	ND
190	ND

SV WELL NO. 39	
DEPTH	Freon 113
20	ND
35	P
50	ND
70	ND
85	17
100	21
110	P
120	P
130	2.1

SV WELL NO. 26	
DEPTH	Freon 113
20	P
35	ND
55	ND
80	P
100	P
115	ND
140	ND
160	ND
180	ND
195	P

Explanation

● 39	Soil Vapor Wells Sampled
○ VE-1	Vapor Extraction Well
F-113	Freon 113
ND	Non-Detect @ Laboratory Detection Limit of 1.0 μg/L-Vapor
P	Sample Port Plugged: No Sample Collected
W	Sample Port Waterlogged; No Sample Collected

NOTE:

Concentrations in μg/L-Vapor

N

400 200 0 400

SCALE IN FEET

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

FREON 113 CONCENTRATIONS AT DEPTH

FIGURE 3-2

Jet Propulsion Laboratory
Pasadena, California

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Date: February 2001
Contract No.: N68711-97-D-8702
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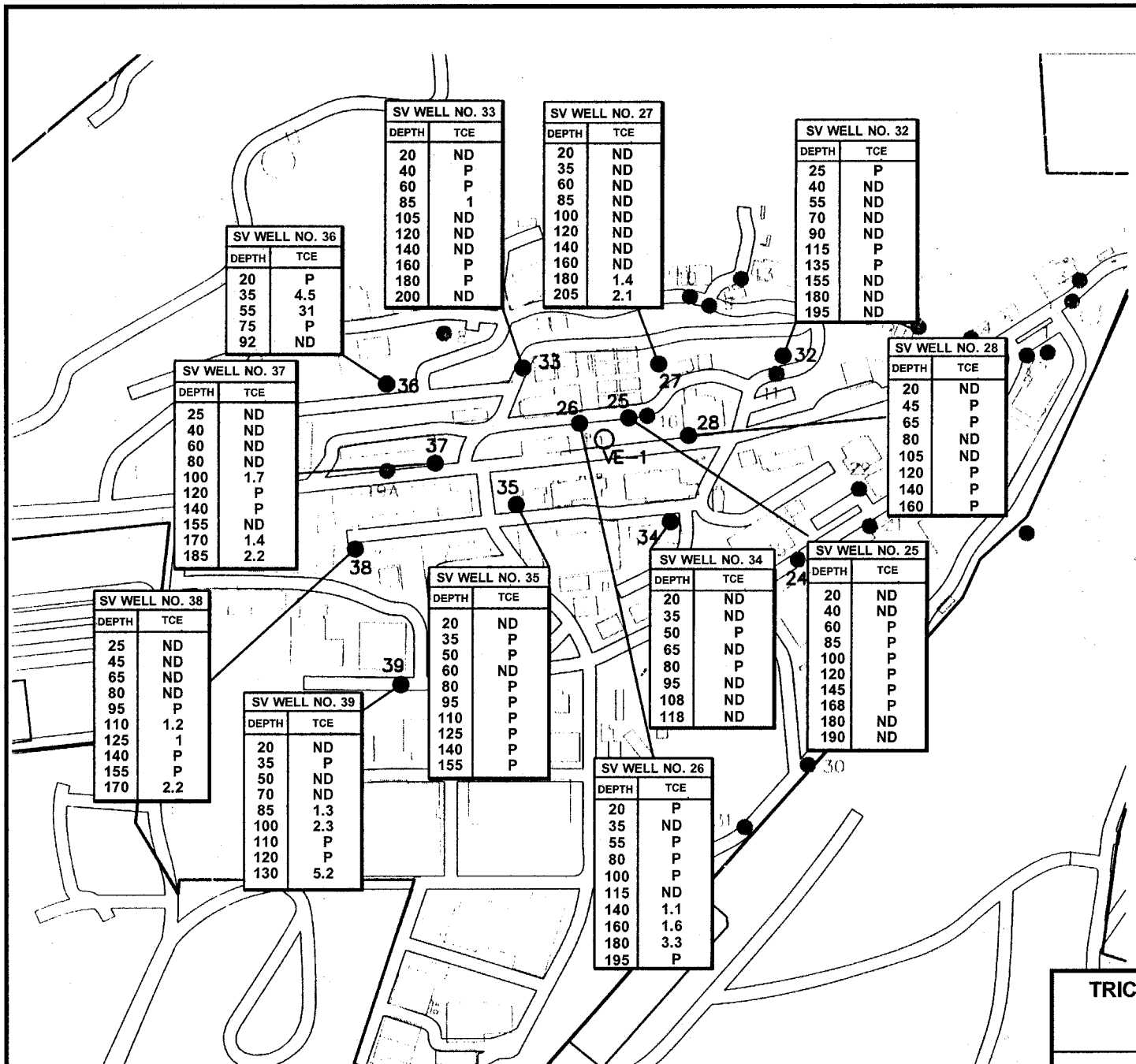


SV WELL NO. 33

DEPTH	TCE
20	ND
40	P
60	P
85	1
105	ND
120	ND
140	ND
160	P
180	P
200	ND

SV WELL NO. 27

DEPTH	TCE
20	ND
35	ND
60	ND
85	ND
100	ND
120	ND
140	ND
160	ND
180	1.4
205	2.1

SV WELL NO. 32

DEPTH	TCE
25	P
40	ND
55	ND
70	ND
90	ND
115	P
135	P
155	ND
180	ND
195	ND

SV WELL NO. 36

DEPTH	TCE
20	P
35	4.5
55	31
75	P
92	ND

SV WELL NO. 37

DEPTH	TCE
25	ND
40	ND
60	ND
80	ND
100	1.7
120	P
140	P
155	ND
170	1.4
185	2.2

SV WELL NO. 28

DEPTH	TCE
20	ND
45	P
65	P
80	ND
105	ND
120	P
140	P
160	P

SV WELL NO. 38

DEPTH	TCE
25	ND
45	ND
65	ND
80	ND
95	P
110	1.2
125	1
140	P
155	P
170	2.2

SV WELL NO. 35

DEPTH	TCE
20	ND
35	P
50	P
60	ND
80	P
95	P
110	P
125	P
140	P
155	P

SV WELL NO. 34

DEPTH	TCE
20	ND
35	ND
50	P
65	ND
80	P
95	ND
108	ND
118	ND

SV WELL NO. 25

DEPTH	TCE
20	ND
40	ND
60	P
85	P
100	P
120	P
145	P
168	P
180	ND
190	ND

SV WELL NO. 39

DEPTH	TCE
20	ND
35	P
50	ND
70	ND
85	1.3
100	2.3
110	P
120	P
130	5.2

SV WELL NO. 26

DEPTH	TCE
20	P
35	ND
55	P
80	P
100	P
115	ND
140	1.1
160	1.6
180	3.3
195	P

Explanation

● 39	Soil Vapor Wells Sampled
○ VE-1	Vapor Extraction Well
TCE	Trichloroethene
ND	Non-Detect @ Laboratory Detection Limit of 1.0 μg/L-Vapor
P	Sample Port Plugged: No Sample Collected
W	Sample Port Waterlogged; No Sample Collected

NOTE:

Concentrations in μg/L-Vapor

N

400 200 0 400

SCALE IN FEET

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

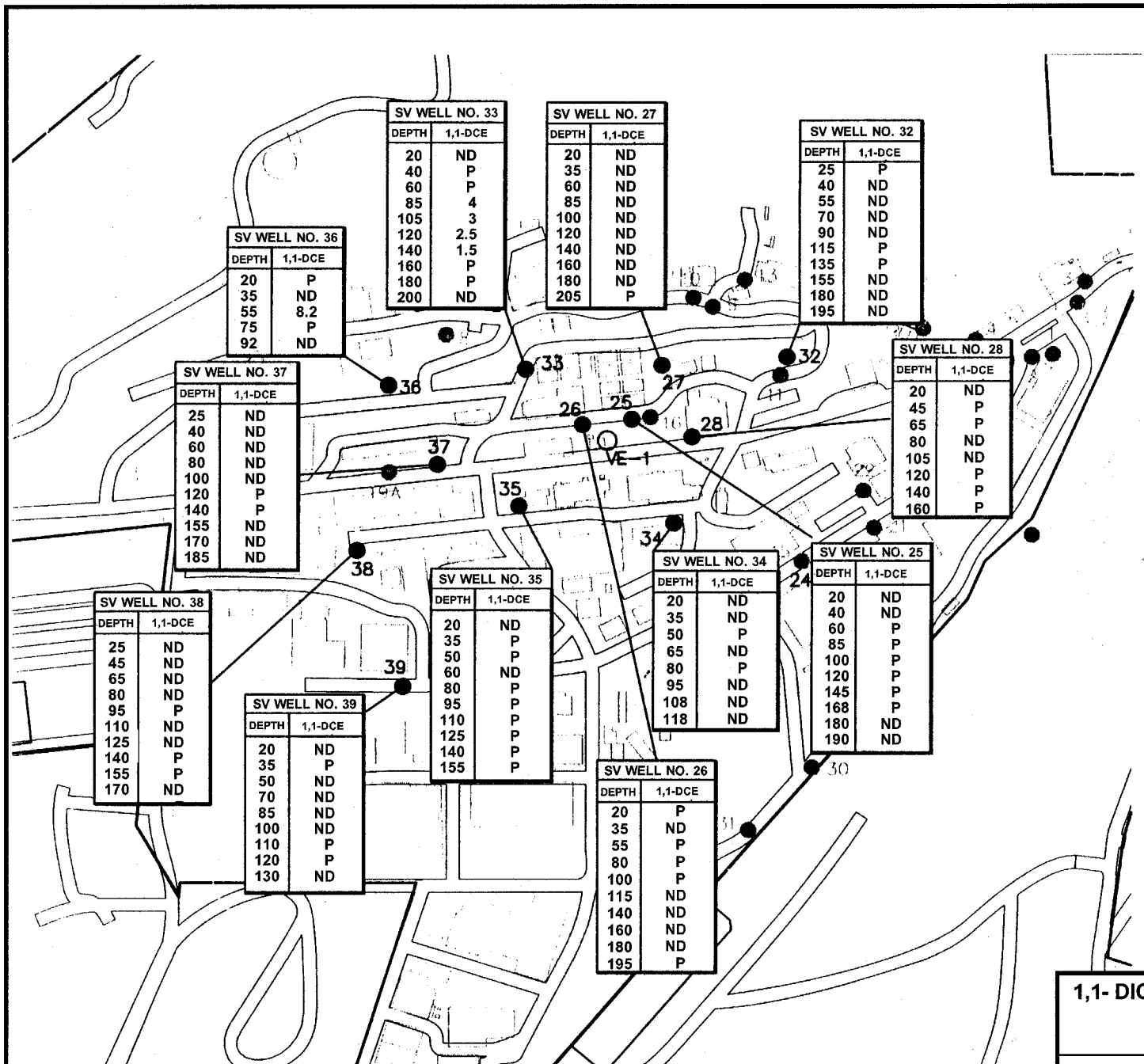
TRICHLOROETHENE CONCENTRATIONS AT DEPTH

FIGURE 3-3

Jet Propulsion Laboratory
Pasadena, California

GEOFON INCORPORATED

Date: February 2001
Contract No.: N68711-97-D-8702
DO No.: 0048



SV WELL NO. 33

DEPTH	1,1-DCE
20	ND
40	P
60	P
85	4
105	3
120	2.5
140	1.5
160	P
180	P
200	ND

SV WELL NO. 27

DEPTH	1,1-DCE
20	ND
35	ND
60	ND
85	ND
100	ND
120	ND
140	ND
160	ND
180	ND
205	P

SV WELL NO. 32

DEPTH	1,1-DCE
25	P
40	ND
55	ND
70	ND
90	ND
115	P
135	P
155	ND
180	ND
195	ND

SV WELL NO. 36

DEPTH	1,1-DCE
20	P
35	ND
55	8.2
75	P
92	ND

SV WELL NO. 37

DEPTH	1,1-DCE
25	ND
40	ND
60	ND
80	ND
100	ND
120	P
140	P
155	ND
170	ND
185	ND

SV WELL NO. 28

DEPTH	1,1-DCE
20	ND
45	P
65	P
80	ND
105	ND
120	P
140	P
160	P

SV WELL NO. 38

DEPTH	1,1-DCE
25	ND
45	ND
65	ND
80	ND
95	P
110	ND
125	ND
140	P
155	P
170	ND

SV WELL NO. 35

DEPTH	1,1-DCE
20	ND
35	P
50	P
60	ND
80	P
95	P
110	P
125	P
140	P
155	P

SV WELL NO. 34

DEPTH	1,1-DCE
20	ND
35	ND
50	P
65	ND
80	P
95	ND
108	ND
118	ND

SV WELL NO. 25

DEPTH	1,1-DCE
20	ND
40	ND
60	P
85	P
100	P
120	P
145	P
168	P
180	ND
190	ND

SV WELL NO. 39

DEPTH	1,1-DCE
20	ND
35	P
50	ND
70	ND
85	ND
100	ND
110	P
120	P
130	ND

SV WELL NO. 26

DEPTH	1,1-DCE
20	P
35	ND
55	P
80	P
100	P
115	ND
140	ND
160	ND
180	ND
195	P

Explanation

● 39	Soil Vapor Wells Sampled
○ VE-1	Vapor Extraction Well
1,1-DCE	1,1-Dichloroethene
ND	Non-Detect @ Laboratory Detection Limit of 1.0 μg/L-Vapor
P	Sample Port Plugged: No Sample Collected
W	Sample Port Waterlogged; No Sample Collected

NOTE:

Concentrations in μg/L-Vapor

N

400 200 0 400

SCALE IN FEET

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

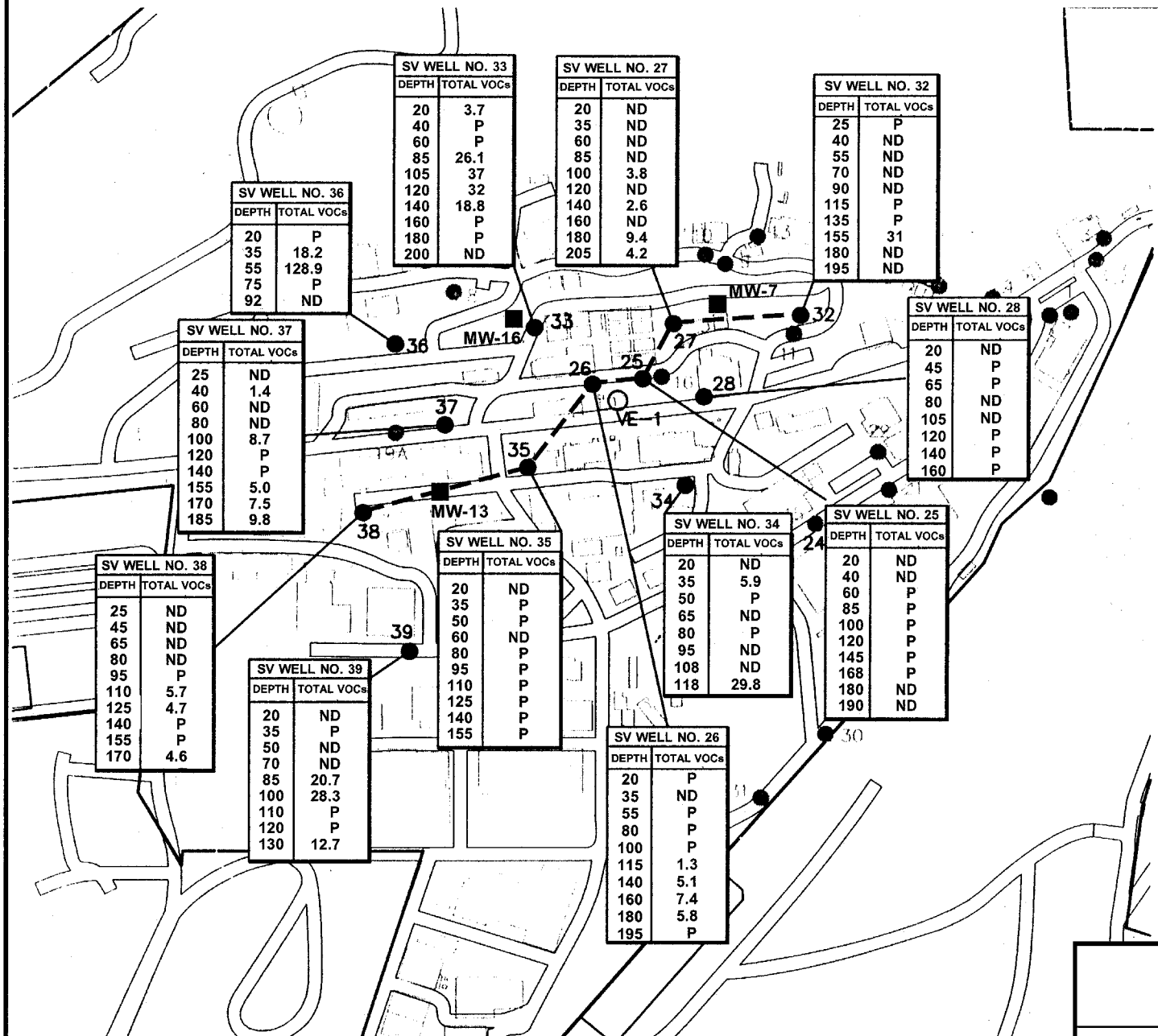
1,1- DICHLOROETHENE CONCENTRATIONS AT DEPTH

FIGURE 3-4

Jet Propulsion Laboratory
Pasadena, California

GEOFON INCORPORATED

Date: February 2001
Contract No.: N68711-97-D-8702
DO No.: 0048



SV WELL NO. 33	
DEPTH	TOTAL VOCs
20	3.7
40	P
60	P
85	26.1
105	37
120	32
140	18.8
160	P
180	P
200	ND

SV WELL NO. 27	
DEPTH	TOTAL VOCs
20	ND
35	ND
60	ND
85	ND
100	3.8
120	ND
140	2.6
160	ND
180	9.4
205	4.2

SV WELL NO. 32	
DEPTH	TOTAL VOCs
25	P
40	ND
55	ND
70	ND
90	ND
115	P
135	P
155	31
180	ND
195	ND

SV WELL NO. 36	
DEPTH	TOTAL VOCs
20	P
35	18.2
55	128.9
75	P
92	ND

SV WELL NO. 37	
DEPTH	TOTAL VOCs
25	ND
40	1.4
60	ND
80	ND
100	8.7
120	P
140	P
155	5.0
170	7.5
185	9.8

SV WELL NO. 28	
DEPTH	TOTAL VOCs
20	ND
45	P
65	P
80	ND
105	ND
120	P
140	P
160	P

SV WELL NO. 38	
DEPTH	TOTAL VOCs
25	ND
45	ND
65	ND
80	ND
95	P
110	5.7
125	4.7
140	P
155	P
170	4.6

SV WELL NO. 35	
DEPTH	TOTAL VOCs
20	ND
35	P
50	P
60	ND
80	P
95	P
110	P
125	P
140	P
155	P

SV WELL NO. 34	
DEPTH	TOTAL VOCs
20	ND
35	5.9
50	P
65	ND
80	P
95	ND
108	ND
118	29.8

SV WELL NO. 25	
DEPTH	TOTAL VOCs
20	ND
40	ND
60	P
85	P
100	P
120	P
145	P
168	P
180	ND
190	ND

SV WELL NO. 39	
DEPTH	TOTAL VOCs
20	ND
35	P
50	ND
70	ND
85	20.7
100	28.3
110	P
120	P
130	12.7

SV WELL NO. 26	
DEPTH	TOTAL VOCs
20	P
35	ND
55	P
80	P
100	P
115	1.3
140	5.1
160	7.4
180	5.8
195	P

Explanation

● 39	Soil Vapor Wells Sampled
○ VE-1	Vapor Extraction Well
■ MW-7	Groundwater Monitoring Well
VOCs	Volatile Organic Compounds
ND	Non-Detect @ Laboratory Detection Limit of 1.0 μg/L-Vapor
P	Sample Port Plugged: No Sample Collected
W	Sample Port Waterlogged; No Sample Collected
- - -	Line of Cross Section

NOTE:

Concentrations in μg/L-Vapor

400 200 0 400

SCALE IN FEET

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

TOTAL VOC CONCENTRATIONS AT DEPTH

FIGURE 3-5

Jet Propulsion Laboratory
Pasadena, California

GEOFON INCORPORATED

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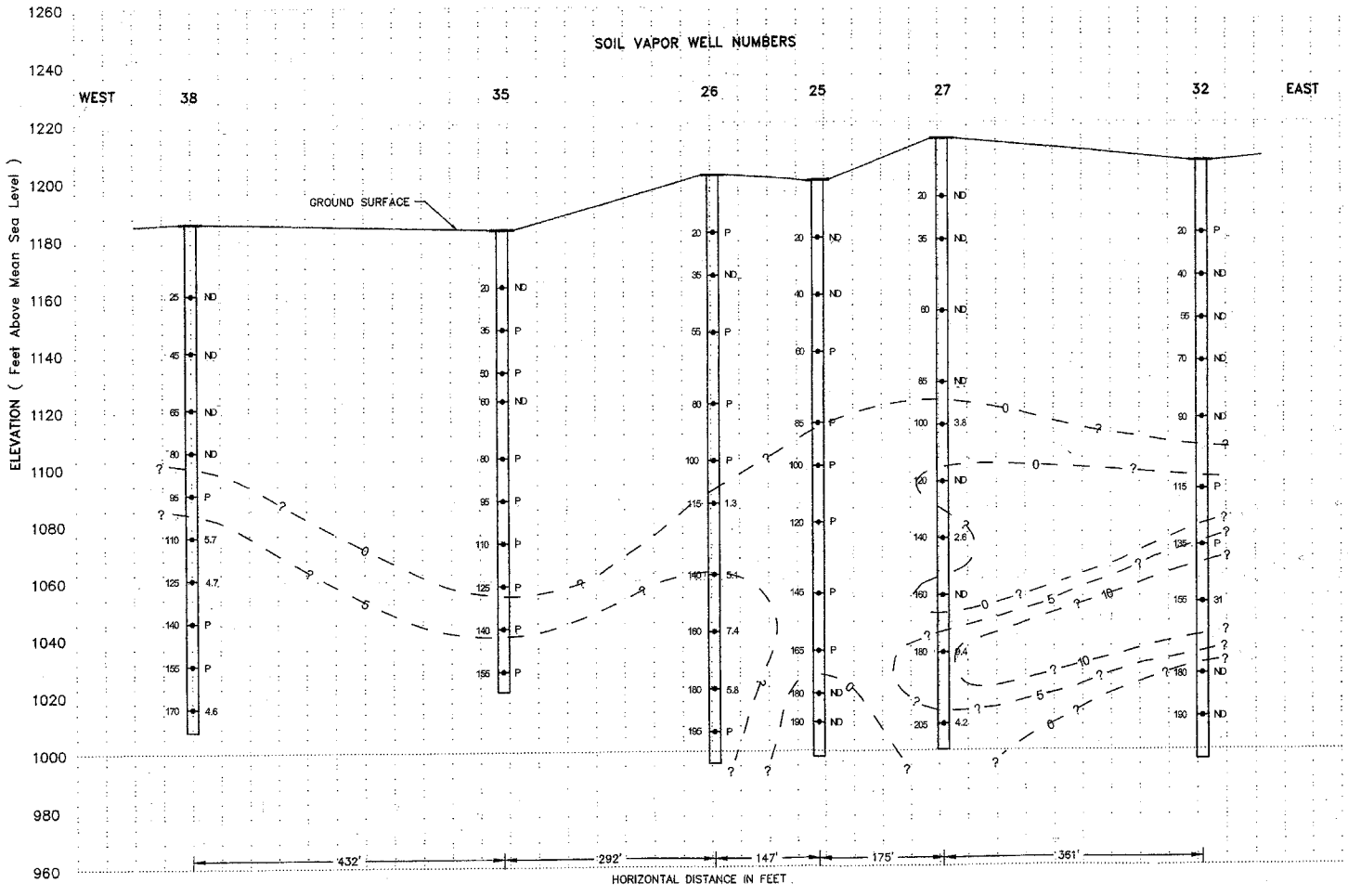

Explanation

25 → Soil Vapor Sample Point and Depth
2.7 Concentrations of Total VOCs (μg/L–Vapor)
VOCs Volatile Organic Compounds
ND Non–Detect @ Laboratory Detection Limit of 1.0 μg/L–Vapor
P Sample Port Plugged; No Sample Collected
W Sample Port Waterlogged; No Sample Collected

Contours:

1. Intervals in 5 and 10 μg/L–Vapor.
2. Queried where spatial control is lacking.

Note:

Location of cross–section is shown on Figures 3–1 through 3–5.

HORIZONTAL SCALE: 1"=160'
160 80 0 160

VERTICAL SCALE: 1"=40'
40 20 0 40

REPRESENTATIVE HORIZONTAL AND VERTICAL DISTRIBUTION OF TOTAL VOCs DURING THE SIXTH LONG-TERM SOIL VAPOR SAMPLING EVENT

FIGURE 3-6

Jet Propulsion Laboratory
Pasadena, California

GEOFON INCORPORATED

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