Semi-Annual Data Report for January 1997
Groundwater Sampling and Analysis
at the Calmar Facility
City of Industry, California

May 21, 1997
2455.01-102

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California Regional Water Quality Control Board
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101 Centre Plaza Drive
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Levine·Fricke·Recon
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

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CERTIFICATION

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by a Levine·Fricke·Recon California Registered Geologist.

REGISTERED GEOLOGIST
MARTIN E. HAMANN
No. 203
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

21 May 1997
Date

Martin Hamann, R.G., C.H.G.
Senior Project Hydrogeologist
California Registered Geologist (5482)
Certified Hydrogeologist (203)

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1.0 INTRODUCTION

At the request of the California Regional Water Quality Control Board, Los Angeles, Calmar, Inc., is currently conducting semi-annual groundwater monitoring at its facility located at 333 South Turnbull Canyon Road in the City of Industry, Los Angeles County, California ("the Site"; Figure 1). This data report summarizes the results for groundwater sampling conducted by Levine·Fricke·Recon Inc. (LFR) on January 16 and 17, 1997.

2.0 SCOPE OF WORK

LFR performed the following work at the Site:

- Depth-to-groundwater measurements (monitoring wells MW-1 through MW-7 and piezometers P-1 and P-2) on January 17, 1997.
- Monitoring well development and groundwater sampling.

LFR's field protocols and groundwater sampling procedures are presented in Appendix A.

3.0 GROUNDWATER ELEVATION AND FLOW DIRECTION

Depth to groundwater measurements, along with historical groundwater elevation data collected at the Site, are summarized in Table 1. Groundwater elevation data from January 17, 1997, were used to construct a groundwater elevation contour map for the Site (Figure 2). Groundwater at the Site appeared to be northerly trending with some mounding in the western portion of the Site.

During the January 1997 measurements, groundwater elevations at MW-3 and P-3 appeared to be higher, relative to groundwater elevations in other wells, as compared to previous monitoring events. A groundwater high in the western portion of the Site appeared to have begun to form as early as April 1994. This change in groundwater elevation contours appeared to be related to the rise in groundwater levels at the Site beginning in 1993. Generally, groundwater elevations have risen approximately 15 feet since 1992.

4.0 ANALYTICAL RESULTS FOR GROUNDWATER SAMPLING

Groundwater samples collected in January 1997 were submitted to BCA Analytical of Anaheim, California. All samples were submitted under chain-of-custody documentation for analysis of halogenated organic compounds using EPA Method 8010.

Analytical results for groundwater samples collected on January 16 and 17, 1997, are summarized in Table 2 and Figure 3.

In general, volatile organic compound (VOC) concentrations in all on-site monitoring wells are decreasing with the exception of well P-2. This well has shown slight increases from the last sampling event (July 1996), but is similar to the 1995 and January 1996 sampling events. Tetrachloroethene (PCE) and trichloroethene concentrations in well MW-3 continued to decline significantly. However, PCE concentrations rose in well P-2 as of January 1994. The shift in elevated PCE concentrations from MW-3 to P-2 appears to correspond with the shift in groundwater flow directions that began in 1994 (see Section 3.0 above). Therefore, well P-2 may now be more indicative of downgradient groundwater conditions than MW-3.

Table 1 :
SUMMARY OF GROUNDWATER ELEVATION DATA
Calmar-City of Industry
LF 2455

Well Number	Well Elevation (feet-MSL)	Date Sampled	Depth to Water (feet)	Ground-Water Elevation (feet-MSL)	Relative Change (feet)
MW-1	303.32	3/29/89	35.84	267.48	--
		4/29/91	42.65	260.67	-6.81
		5/10/91	42.72	260.60	-0.07
		7/30/91	43.52	259.80	-0.80
		10/11/91	44.24	259.08	-0.72
		3/25/92	43.77	259.55	0.47
	303.16 *	4/15/93	37.01	266.15	6.60
		7/30/93	34.62	268.54	2.39
		11/30/93	32.92	270.24	1.70
		4/28/94	31.11	272.05	1.81
		7/27/94	30.89	272.27	0.22
		10/6/94	31.31	271.85	-0.42
		1/26/95	30.97	272.19	0.34
		3/28/95	29.77	273.39	1.20
		1/25/96	27.54	275.62	2.23
		7/23/96	27.67	275.49	-0.13
		1/17/97	27.67	275.49	0.00
MW-2	303.29	3/29/89	35.14	268.15	--
		4/29/91	41.38	261.91	-6.24
		5/10/91	41.45	261.84	-0.07
		7/30/91	42.12	261.17	-0.67
		10/11/91	42.67	260.62	-0.55
		3/25/92	42.21	261.08	0.46
	303.15 *	4/15/93	36.10	267.05	5.97
		7/30/93	33.86	269.29	2.24
		11/30/93	32.22	270.93	1.64
		4/28/94	30.42	272.73	1.80
		7/27/94	30.21	272.94	0.21
		10/6/94	30.65	272.50	-0.44
		1/26/95	30.29	272.86	0.36
		3/28/95	29.09	274.06	1.20
		1/25/96	26.77	276.38	2.32
		7/23/96	26.90	276.25	-0.13
		1/17/97	26.84	276.31	0.06

Table 1 :
SUMMARY OF GROUNDWATER ELEVATION DATA
Calmar-City of Industry
LF 2455

Well Number	Well Elevation (feet-MSL)	Date Sampled	Depth to Water (feet)	Ground-Water Elevation (feet-MSL)	Relative Change (feet)
MW-3	302.67	3/29/89	35.01	267.66	--
		4/29/91	41.67	261.00	-6.66
		5/10/91	41.72	260.95	-0.05
		7/30/91	42.50	260.17	-0.78
		10/11/91	43.11	259.56	-0.61
		3/25/92	42.50	260.17	0.61
	302.36 *	4/15/93	35.92	266.44	6.27
		7/30/93	33.71	268.65	2.21
		11/30/93	NA	--	--
		4/28/94	30.11	272.25	3.60
		7/27/94	29.92	272.44	0.19
		10/6/94	30.34	272.02	-0.42
		1/26/95	29.46	272.90	0.88
		3/28/95	28.43	273.93	1.03
		1/25/96	26.34	276.02	2.09
		7/23/96	26.07	276.29	0.27
		1/17/97	**25.28**	**277.08**	**0.79**
MW-4	304.78	4/15/93	35.85	268.93	--
		7/30/93	33.96	270.82	1.89
		11/30/93	32.46	272.32	1.50
		4/28/94	30.76	274.02	1.70
		7/27/94	30.56	274.22	0.20
		10/6/94	31.01	273.77	-0.45
		1/26/95	30.61	274.17	0.40
		3/28/95	29.41	275.37	1.20
		1/25/96	27.42	277.36	1.99
		7/23/96	27.52	277.26	-0.10
		1/17/97	**27.45**	**277.33**	**0.07**
MW-5	304.09	4/15/93	34.09	270.00	--
		7/30/93	32.31	271.78	1.78
		11/30/93	30.9	273.19	1.41
		4/28/94	29.27	274.82	1.63
		7/27/94	29.04	275.05	0.23
		10/6/94	29.46	274.63	-0.42
		1/26/95	28.98	275.11	0.48
		3/28/95	27.8	276.29	1.18
		1/25/96	25.97	278.12	1.83
		7/23/96	26.03	278.06	-0.06
		1/17/97	**25.88**	**278.21**	**0.15**

Table 1 :

SUMMARY OF GROUNDWATER ELEVATION DATA

Calmar-City of Industry

LF 2455

Well Number	Well Elevation (feet-MSL)	Date Sampled	Depth to Water (feet)	Ground-Water Elevation (feet-MSL)	Relative Change (feet)
MW-6	303.50	7/30/93	33.87	269.63	--
		11/30/93	32.37	271.13	1.50
		4/28/94	30.59	272.91	1.78
		7/27/94	30.35	273.15	0.24
		10/6/94	30.75	272.75	-0.40
		1/26/95	30.42	273.08	0.33
		3/28/95	29.21	274.29	1.21
		1/25/96	27.09	276.41	2.12
		7/23/96	27.21	276.29	-0.12
		1/17/97	27.15	276.35	0.06
MW-7	303.04	7/30/93	34.00	269.04	--
		11/30/93	32.24	270.80	1.76
		4/28/94	30.43	272.61	1.81
		7/27/94	30.20	272.84	0.23
		10/6/94	30.61	272.43	-0.41
		1/26/95	30.78	272.26	-0.17
		3/28/95	29.05	273.99	1.73
		1/25/96	26.90	276.14	2.15
		7/23/96	27.05	275.99	-0.15
		1/17/97	26.97	276.07	0.08
P-1	301.99	3/29/89	34.06	267.93	--
		4/29/91	40.59	261.40	-6.53
		5/10/91	40.66	261.33	-0.07
		7/30/91	41.40	260.59	-0.74
		10/11/91	41.95	260.04	-0.55
		3/25/92	41.16	260.83	0.79
	301.65 *	4/15/93	34.94	266.71	5.88
		7/30/93	32.76	268.89	2.18
		11/30/93	NA	--	--
		4/28/94	29.11	272.54	3.65
		7/27/94	29.04	272.61	0.07
		10/6/94	29.05	272.60	-0.01
		1/26/95	28.53	273.12	0.52
		3/28/95	27.78	273.87	0.75
		1/25/96	26.02	275.63	1.76
		7/23/96	26.11	275.54	-0.09
		1/17/97	N/A	N/A	N/A

Table 1 :

SUMMARY OF GROUNDWATER ELEVATION DATA

Calmar-City of Industry

LF 2455

Well Number	Well Elevation (feet-MSL)	Date Sampled	Depth to Water (feet)	Ground-Water Elevation (feet-MSL)	Relative Change (feet)
P-2	303.09	3/29/89	35.14	267.95	--
		4/29/91	42.04	261.05	-6.90
		5/10/91	40.10	262.99	1.94
		7/30/91	42.82	260.27	-2.72
		10/11/91	43.43	259.66	-0.61
		3/25/92	43.01	260.08	0.42
		4/15/93	36.58	266.51	6.43
		7/30/93	34.25	268.84	2.33
		11/30/93	32.59	270.50	1.66
		4/28/94	30.78	272.31	1.81
		7/27/94	30.52	272.57	0.26
		10/6/94	30.94	272.15	-0.42
		1/26/95	30.62	272.47	0.32
		3/28/95	29.43	273.66	1.19
		1/25/96	27.18	275.91	2.25
		7/23/96	27.31	275.78	-0.13
		1/17/97	27.30	275.79	0.01
P-3	305.11	3/29/89	36.59	268.52	--
		4/29/91	40.59	264.52	-4.00
		5/10/91	40.68	264.43	-0.09
		7/30/91	41.86	263.25	-1.18
		10/11/91	42.07	263.04	-0.21
		3/25/92	41.21	263.90	0.86
	305.01 *	4/15/93	35.12	269.89	5.99
		7/30/93	33.96	271.05	1.16
		11/30/93	32.12	272.89	1.84
		4/28/94	30.48	274.53	1.64
		7/27/94	30.33	274.68	0.15
		10/6/94	30.76	274.25	-0.43
		1/26/95	30.04	274.97	0.72
		3/28/95	28.62	276.39	1.42
		1/25/96	26.64	278.37	1.98
		7/23/96	26.66	278.35	-0.02
		1/17/97	26.23	278.78	0.43

NOTES:

MSL = Mean Sea Level

* = Resurveyed after top of casing trimmed in April 1993.

NA = No access (area flooded).

QA/QC

Table 2 :
SUMMARY OF DETECTED
VOCs (EPA Method 8010/601) and BTEX (EPA Method 8020/602) IN GROUNDWATER SAMPLES
Calmar-City of Industry
LF 2455
All concentrations reported in micrograms per liter (µg/L)

Well Number	Date Sampled	PCE	TCE	1,1-DCE	1,1-DCA	cis-1,2-DCE	1,2-DCA	1,1,1-TCA	Benzene	Toluene	Ethylbenzene	Xylene	Freon 113	Vinyl Chloride	Trans-1,2-DCE	Other Compounds
MW-1	9/1/88 *	20	23	6.1	ND	TR	ND	6.5	TR	TR	<0.5	TR	NR	NR	NR	
	4/29/91 **	34	34	19	ND	2.9	ND	4.5	<1.0	<1.0	<1.0	<1.0	NR	<0.5	ND	
	10/11/91	32	27	16.0	ND	2	ND	3	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<1.0	Methylene chloride 1.0***; Freon-TF 44.0
	3/25/92	12	16	4.4	ND	1.7	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	NR	<0.5	<0.5	
	4/16/93	18	15	11	<1.0	<1.0	<1.0	2.0	<1.0	1.7	<1.0	<1.0	NR	<1.0	<1.0	
	8/3/93	13	ND	7	ND	ND	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	Chloromethene 18.0
	11/30/93	12.0	8.0	3.5	<1.0	<1.0	<1.0	1.5	NA	NA	NA	NA	NR	<1.0	ND	
	3/28/94	16	9.9	5.2	<1.0	<1.0	<1.0	2.6	NA	NA	NA	NA	NR	<1.0	ND	
	6/21/94	14	6.2	3.4	<1.0	<1.0	<1.0	1.7	NA	NA	NA	NA	NR	<1.0	ND	
	10/6/94	13	6	2.7	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	10/6/94 (D)	13	5.7	2.6	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	1/26/95	13	6.1	1.5	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/28/95	12	5.9	1.6	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<0.22	<0.9	Chloroform 0.35; Dichloromethane 2.5
	3/28/95 (D)	9	3.5	4.4	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<0.22	<0.9	Chloroform 0.14; Dichloromethane 1.8
	1/26/96	12	4.5	2.1	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/24/96	6.7	2.8	0.79	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	3.4	<0.5	<0.5	
	7/24/96 (D)	9.3	3.1	0.86	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	3.7	<0.5	<0.5	
	1/16/97	7.4	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	3.8	<0.5	<0.5	
MW-2	9/1/88 *	7	42	4	ND	1.9	ND	0.77	<0.5	<0.5	<0.5	<0.5	NR	NR	NA	
	4/29/91 **	11	140	52	5.4	2.2	ND	73	<1.0	<1.0	<1.0	<1.0	NR	<0.5	NA	
	10/11/91	13	5	2	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<1.0	Freon-TF 15.0
	3/25/92	7.2	84	20	2.5	2	<1.0	33	<0.5	<0.5	<0.5	<0.5	NR	<1.0	<1.0	
	4/15/93	6.2	250	96	20	3.9	<1.0	96	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/2/93	4.7	110	48	9.2	1.6	<1.0	34	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	Chloromethane 9.6; 1,2-Dichloropropane 200.0
	12/1/93	6.2	200	26	4.2	1.7	<1.0	13	NA	NA	NA	NA	NR	<0.27	<0.22	
	3/29/94	7.3	260	40	6.7	1.9	<1.0	20	NA	NA	NA	NA	NR	<1.0	ND	Dichloromethane 4.6
	6/22/94	4.2	<5.0	22	4.8	<1.0	<1.0	12	NA	NA	NA	NA	NR	<0.22	<0.43	
	10/6/94	6.2	44	8.2	2.6	<1.0	<1.0	4.9	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	1/26/95	5.7	200	31	7.9	<1.0	<1.0	15	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/28/95	5.3	100	22	4.7	1.6	<1.0	7.3	NA	NA	NA	NA	NR	<0.22	<0.09	Dichloromethane 8.3
	1/25/96	4.1	130	13	3.1	<1.0	<1.0	3.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	1/25/96 (D)	4.2	130	13	3.0	<1.0	<1.0	2.9	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/23/96	2.4	92	10	1.8	<1.0	<1.0	1.7	NA	NA	NA	NA	<1.0	<0.22	<0.09	
	1/17/97	3.8	81	14	3.6	1.4	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
MW-3	9/1/88 *	47	20	79	36	TR	0.98	2.3	<0.5	<0.5	TR	<0.5	NR	NR	NR	
	4/29/91 **	170	210	27	2.8	ND	ND	5.4	<1.0	<1.0	<1.0	<1.0	NR	<0.5	ND	
	4/15/93	170	24	71	7.5	<1.0	<1.0	4.2	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/2/93	160	23	47	9.6	ND	<1.0	2.3	<5.0	<5.0	<5.0	<5.0	NR	<1.0	<1.0	
	11/30/93	360	19	17	1.0	<1.0	<1.0	2.5	NA	NA	NA	NA	NR	<1.0	<1.0	
	11/30/93 (D)	320	19	16	<1.0	<1.0	<1.0	2.5	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/94	410	17	12	1.1	1.2	<1.0	2.9	NA	NA	NA	NA	NR	<1.0	<1.0	Dichloromethane 4.0
	6/22/94	160	11	16	<1.0	<1.0	<1.0	1.6	NA	NA	NA	NA	NR	<0.22	0.51	
	10/6/94	110	28	61	12	2.2	<1.0	2.6	<1.0	6.0	<1.0	<1.0	NR	<1.0	<0.43	Dichloromethane 2.1
	1/26/95	170	8.6	7.1	<1.0	<1.0	<1.0	1.4	NA	NA	NA	NA	NR	<1.0	0.41	
	3/28/95	160	17	53	1.4	1.4	<1.0	2.1	NA	NA	NA	NA	<1.0	NR	<1.0	Chloroform 0.69; Dichloromethane 4.7
	1/26/96	130	76	130	22	<1.0	<1.0	3.7	NA	NA	NA	NA	NR	3.9	<1.0	
	7/23/96	120	34	28	1.3	<1.0	<1.0	1.6	NA	NA	NA	NA	<1.0	<1.0	<1.0	
	1/17/97	61	18	41	0.90	0.71	<0.5	1.4	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/17/97 (D)	61	17	55	0.86	0.71	<0.5	1.4	NA	NA	NA	NA	<0.5	<0.5	<0.5	

Table 2 :
SUMMARY OF DETECTED
VOCs (EPA Method 8010/601) and BTEX (EPA Method 8020/602) IN GROUNDWATER SAMPLES
Calmar-City of Industry
LF 2455
All concentrations reported in micrograms per liter (µg/L)

Well Number	Date Sampled	PCE	TCE	1,1-DCE	1,1-DCA	cis-1,2-DCE	1,2-DCA	1,1,1-TCA	Benzene	Toluene	Ethylbenzene	Xylene	Freon 113	Vinyl Chloride	Trans-1,2-DCE	Other Compounds
MW-4	4/16/93	12	4.5	5.4	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	4/23/93	12	4.9	6.3	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/3/93	8.9	3.8	1.9	ND	ND	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	Chloromethane 10.0
	11/30/93	10	2.7	1.3	<1.0	<1.0	<1.0	1.7	NA	NA	NA	NA	NR	<1.0	ND	
	3/28/94	16	5.8	2.7	<1.0	<1.0	<1.0	2.8	NA	NA	NA	NA	NR	<1.0	ND	
	4/23/94	12	4.9	6.3	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	6/21/94	10	3.4	3.7	<1.0	<1.0	<1.0	1.2	NA	<1.0	NA	NA	NR	<1.0	ND	
	10/7/94	12	4.4	1.9	<1.0	<1.0	<1.0	1.5	<1.0	6.8	<1.0	<1.0	NR	<1.0	<1.0	
	1/26/95	12	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	10	2.9	3.7	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	Chloroform 0.09; Dichloromethane 7.5
	1/25/96	2.5	88	1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/24/96	8.1	2.5	0.52	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	2.7	<0.5	<0.5	
	1/16/97	5.2	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	2.2	<0.5	<0.5	
MW-5	4/16/93	5.0	2.8	2.4	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	4/23/93	5.9	2.2	1.0	<1.0	<1.0	<1.0	1.7	<1.0	1.6	<1.0	<1.0	NR	<1.0	<1.0	
	8/3/93	3.3	1.7	<1.0	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	Chloromethane 38.0
	12/1/93	4.2	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<0.27	<1.0	
	3/28/94	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	4/23/94	5.9	2.2	1.0	<1.0	<1.0	<1.0	1.7	<1.0	1.6	<1.0	<1.0	NR	<1.0	<1.0	
	6/21/94	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NR	<1.0	<1.0	
	10/7/94	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	1/26/95	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	Dichloromethane 7.2
	1/25/96	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/24/96	<0.5	0.59	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/16/97	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
MW-6	8/3/93	4.8	12	2.6	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	Chloromethane 14.0
	8/10/93	11	110	7.3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NR	<2.0	<2.0	
	11/30/93	5.0	250	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<0.23	
	3/28/94	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	6/22/94	6.3	55	4.5	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<0.22	<0.43	
	6/22/94 (D)	5.9	48	3.2	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<0.22	<0.43	
	10/7/94	6.7	36	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	1/27/95	3	220	<1.0	<1.0	<1.0	<1.0	1.4	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	3.7	47	2.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	Chloroform 0.11; Dichloromethane 5.5
	1/25/96	3.3	280	1.8	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/24/96	2.4	77	0.71	<0.5	0.61	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/16/97	1.9	91	0.57	<0.5	1.6	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/16/97 (D)	1.9	90	0.93	<0.5	1.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
MW-7	8/3/93	3.7	16	12	<1.0	<1.0	<1.0	3.4	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/10/93	3.9	8.3	7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/10/93 (D)	3.1	11	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	11/30/93	4.9	11	7.7	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/28/94	6.6	9.9	6.5	<1.0	<1.0	<1.0	1.1	NA	NA	NA	NA	NR	<1.0	<1.0	
	6/22/94	5.2	7.1	7.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<0.22	<0.43	
	10/7/94	5.8	6	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	1/27/95	5.4	38	22	1.1	<1.0	<1.0	1.1	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	3.8	4.4	3.6	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	Chloroform 0.08; Dichloromethane 5.2
	1/25/96	2.2	39	65	4.2	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	2.3	<1.0	
	7/24/96	0.87	43	80	2.8	2.3	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/16/97	1.6	45	72	3.0	3.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	1.0	<0.5	

Table 2 :
SUMMARY OF DETECTED
VOCs (EPA Method 8010/601) and BTEX (EPA Method 8020/602) IN GROUNDWATER SAMPLES
Calmer-City of Industry
LF 2455
All concentrations reported in micrograms per liter (µg/L)

Well Number	Date Sampled	PCE	TCE	1,1-DCE	1,1-DCA	cis-1,2-DCE	1,2-DCA	1,1,1-TCA	Benzene	Toluene	Ethylbenzene	Xylene	Freon 113	Vinyl Chloride	Trans-1,2-DCE	Other Compounds
P-1	10/11/91	10	5	12	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<1.0	Methylene chloride 1.0***; Freon-TF 5.0
	3/25/92	13	6.9	41	ND	ND	<1.0	2.4	<0.5	2	<0.5	<0.5	NR	<1.0	<1.0	
	4/16/93	18	6.0	55	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	4/16/93 (D)	16	5.7	57	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/2/93	14	7.8	49	1.6	ND	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	12/1/93	20	7.5	69	<1.0	<1.0	<1.0	2.5	NA	NA	NA	NA	NR	<0.27	<0.22	
	3/29/94	22	11	90	2.1	<1.0	<1.0	3	NA	NA	NA	NA	NR	0.59	<1.0	Dichloromethane 5.2
	6/22/94	18	8.4	68	<1.0	<1.0	<1.0	1.7	NA	<1.0	NA	NA	NR	<0.22	<0.43	
	10/6/94	21	9.5	120	1.9	<1.0	<1.0	2.6	<1.0	12	<1.0	<1.0	NR	<1.0	<1.0	Dichloromethane 3.3
	1/27/95	13	3.9	30	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	1/27/95 (D)	15	4.6	36	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	13	6.1	51	1.4	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	Chloroform 0.20; Dichloromethane 3.7
	1/26/96	23	29	100	3.7	<1.0	<1.0	2.1	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/23/96	32	29	120	1.4	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	
	1/16-17/97 ****	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
P-2	5/13/91 **	20	5.7	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NR	<1.0	ND	
	10/11/91	14	7	4	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<1.0	Freon-TF 15.0; Chloromethane 1.0 Methylene chloride 1.0***
	3/25/92	7.4	7.5	3.9	ND	ND	<1.0	0.60	<0.5	<0.5	<0.5	<0.5	NR	<0.5	<0.5	
	4/15/93	18	140	58	8.4	12	<1.0	1.1	<1.0	1.2	<1.0	<1.0	NR	<1.0	<1.0	
	8/3/93	12	93	ND	8.3	9.4	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	Chloromethane 4.1
	11/30/93	11	210	45	8.3	11	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	ND	
	3/29/94	70	230	57	9.2	8.6	<1.0	2.4	NA	NA	NA	NA	NR	0.37	1.5	Dichloromethane 4.3; 1,1,2-TCA 0.20
	6/21/94	44	98	47	6.3	<1.0	<1.0	1.3	NA	NA	NA	NA	NR	<1.0	ND	
	6/21/94 (D)	45	91	33	4.4	<1.0	<1.0	1.4	NA	NA	NA	NA	NR	<1.0	ND	
	10/6/94	44	130	43	6.4	9.5	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	NR	0.60	<1.0	Dichloromethane 1.8; 1,1,2-TCA 0.52
	1/27/95	150	130	44	4.2	<1.0	<1.0	3.2	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	130	110	48	5.6	7.3	<1.0	3.7	NA	NA	NA	NA	NR	<0.5	0.19	Chloroform 0.18; Dichloromethane 2.6
	1/26/96	110	200	68	10	<1.0	<1.0	10.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/24/96	79	51	26	3.6	2.8	<0.5	3.4	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/17/97	130	100	68	11	8.2	<0.5	9.0	NA	NA	NA	NA	<0.5	<0.5	<0.5	
P-3	5/13/91 **	6.2	2.3	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NR	<1.0	ND	
	10/11/91	7	3	ND	ND	ND	ND	ND	<1.0	2	<1.0	<1.0	NR	<5.0	<1.0	Freon-TF 4.0; Chloroform 2.0 Methylene chloride 1.0***
	3/25/92	4.9	3.8	1.7	ND	ND	<0.5	0.7	<0.5	2.7	<0.5	<0.5	NR	<0.50	<0.50	
	4/15/93 (D)	6.7	4.5	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	4/15/93	6.5	4.3	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/2/93	4	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	Chloromethane 15.0
	12/1/93	5.7	4.3	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NR	<0.27	<0.22	
	3/28/94	8	4.5	1.1	<1.0	<1.0	<1.0	1.1	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/28/94 (D)	8	4.7	1.7	<1.0	<1.0	<1.0	1.1	NA	NA	NA	NA	NR	<1.0	ND	
	6/21/94	5.7	4.6	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	ND	
	10/7/94	6	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	1/26/95	5	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<0.1	<1.0	Dichloromethane 7.4
	1/25/96	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/24/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	1.4	<0.5	<0.5	
	1/16/97	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	7.3	<0.5	<0.5	Chloroform 0.84

Table 2 :
SUMMARY OF DETECTED
VOCs (EPA Method 8010/601) and BTEX (EPA Method 8020/602) IN GROUNDWATER SAMPLES
Calmar-City of Industry
LF 2455
All concentrations reported in micrograms per liter (µg/L)

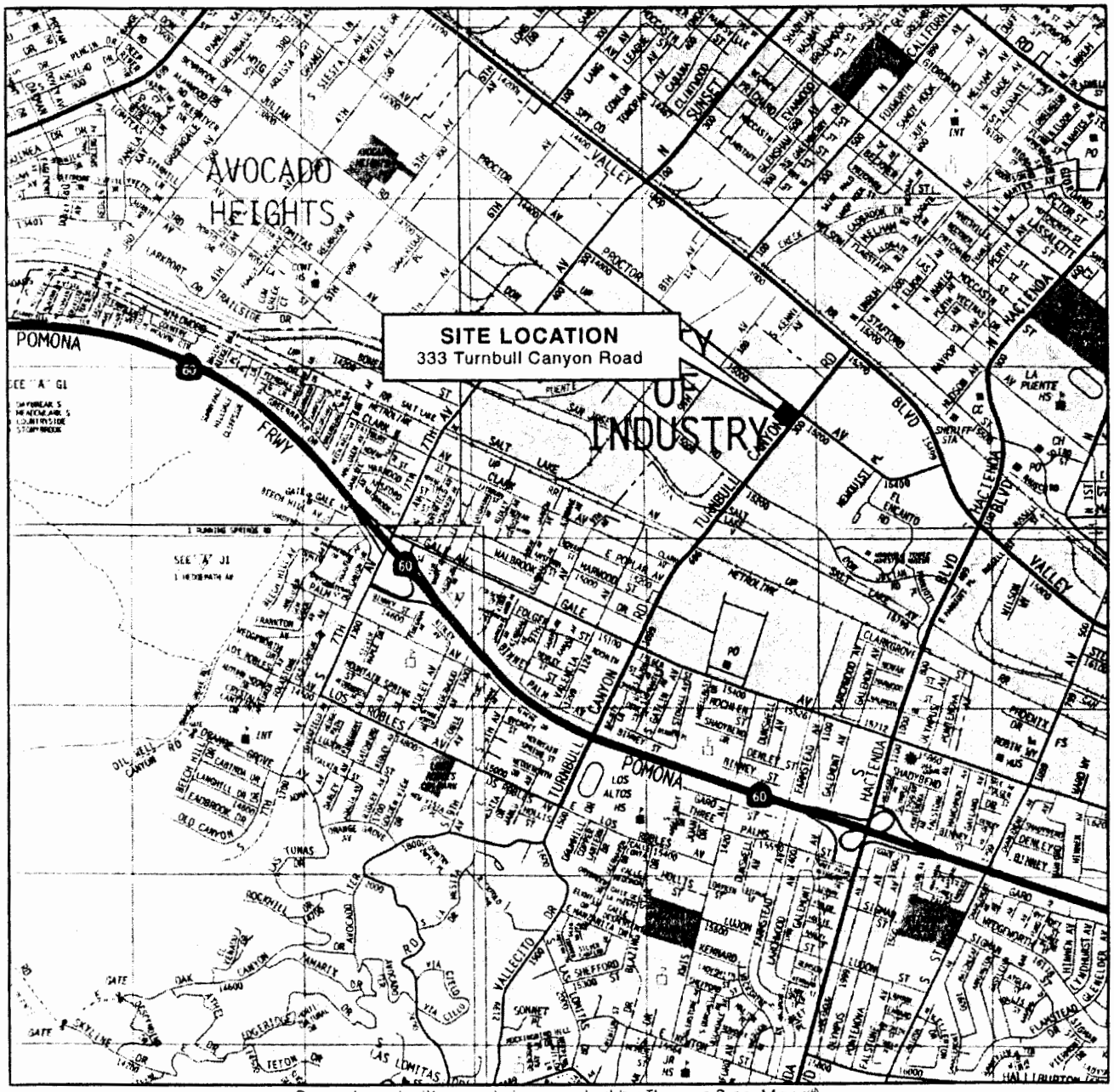
Well Number	Date Sampled	PCE	TCE	1,1-DCE	1,1-DCA	cis-1,2-DCE	1,2-DCA	1,1,1-TCA	Benzene	Toluene	Ethylbenzene	Xylene	Freon 113	Vinyl Chloride	Trans-1,2-DCE	Other Compounds
Equipment Blanks	11/30/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	ND	
	12/1/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NR	<0.27	<0.22	
	4/15/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.2	<1.0	<1.0	NR	<1.0	<1.0	
	4/16/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	4/23/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	6/2/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	8/3/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NR	<1.0	<1.0	
	8/10/93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	6/21/94	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	ND	
	10/6/94	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	10/7/94	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<1.0	<1.0	
	3/28/95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	3/29/95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	Dichloromethane 5.5
	1/26/96	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NR	<1.0	<1.0	
	7/24/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/16/97	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	
	1/17/97	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	Methylene chloride 5.3
Trip Blanks	1/27/95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	NA	NA	
	7/24/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	<0.5	<0.5	

NOTES:

< Designates less than laboratory detection limit.
PCE Tetrachloroethene
TCE Trichloroethene
1,1-DCE 1,1-Dichloroethene
1,1-DCA 1,1-Dichloroethane
cis-1,2-DCE cis-1,2-Dichloroethene
1,2-DCA 1,2-Dichloroethane
1,1,1-TCA 1,1,1-Trichloroethane
ND Not Detected (laboratory detection limits unavailable)
TR Trace, below detection limit (per Camp Dresser & McKee Inc., 1991)
NA Not Analyzed
NR Not Reported
D Duplicate sample

*Report by BCL Associates, Inc. October 1988
**Report by Camp, Dresser & McKee, Inc., May 1991
***10/11/91 Methylene Chloride detected at 1.0 µg/l in blank method
****Well P-1 was not sampled due to flooding in area.

QA/QC



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MAP SOURCE: Thomas Bros Guide®, Los Angeles County, California, pp.**637, 638,677 & 678** , 1996.

0 1/4 1/2 1 mile

Site Vicinity

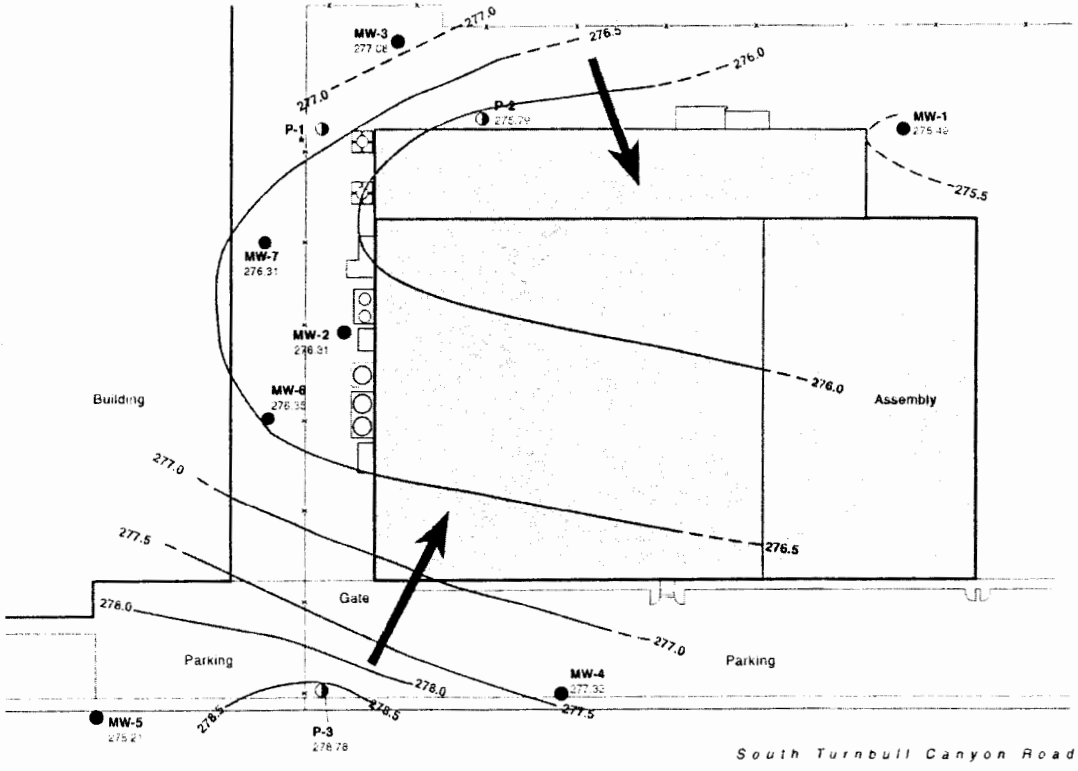
Calmar

Levine·Fricke·Recon

Project No. 2455

Figure 1

2456-70 _ 112196MEH/scj



EXPLANATION

Property Line

Monitoring Well Location

Piezometer Location

Groundwater Elevation Contour (ft-MSL) Dashed Where Inferred

277.55 Groundwater Elevation Contour (ft-MSL)

Approximate Horizontal Groundwater Flow Direction

NOTE. * Water level elevations were not recorded due to flooding in vicinity of well.

0 50 Feet

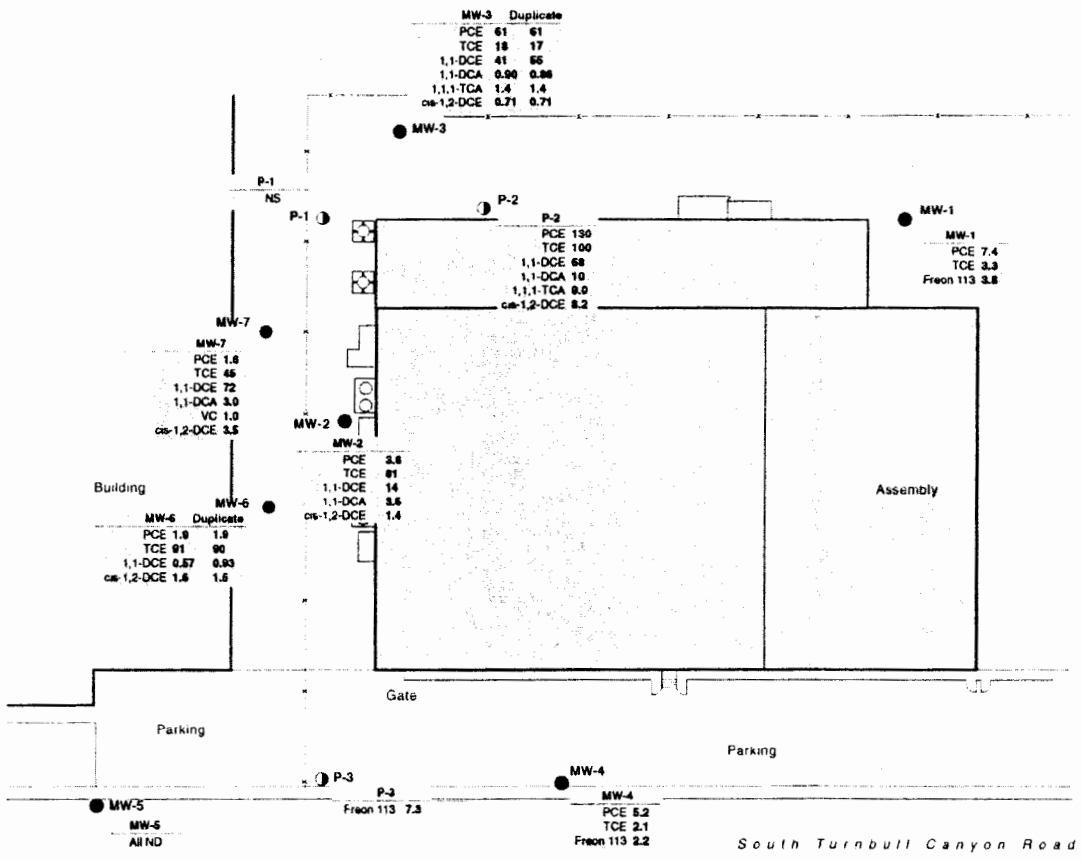
Caima:

Groundwater Elevations Contours
January 17, 1997

Levine-Fricke-Recon

Figure 2

Project No. 2455



EXPLANATION

Property Line

Monitoring Well Location

Piezometer Location

MW-1 PCE 7.4 — Groundwater analytical data showing halogenated volatile organic compounds (HVOCs) constituent and concentration in micrograms per liter (µg/L)

PCE	Tetrachloroethene
TCE	Trichloroethene
1,1-DCE	1,1-Dichloroethene
1,1-DCA	1,1-Dichloroethane
cis-1,2-DCE	cis-1,2-Dichloroethene
1,1,1-TCA	1,1,1-Trichloroethane
VC	Vinyl Chloride
NS	Not Sampled During this Event due to flooding
ND	Not Detected Above Laboratory Detection Limit

NOTES: All samples analyzed using EPA Method 8010.

0 — 60 Feet

Caimar

Summary of HVOCs and BTEX Detected in Groundwater Samples January 1997

Levine-Fricke-Recon

Figure 3

Project No 2455

APPENDIX A

LEVINE·FRICKE·RECON FIELD PROTOCOLS

GROUNDWATER MONITORING WELL DEVELOPMENT AND SAMPLING

All equipment used to develop or sample the wells was washed in a laboratory-grade detergent and/or steam cleaned prior to use in each monitoring well.

Development of groundwater monitoring wells prior to sampling was conducted to remove sediments from the well boring and enhance communication with the surrounding formation. Development was conducted using one or a combination of the following techniques: overpumping, surging, swabbing, and bailing. The groundwater temperature, specific conductivity, turbidity, and pH were monitored during the development process.

Prior to groundwater sampling, approximately 4 to 10 casing volumes were purged from each well. Purging was conducted using an electric submersible pump. The groundwater temperature, specific conductance, turbidity, and pH were measured throughout the purging process. These groundwater parameters were allowed to reach relative stabilization before groundwater samples were collected for the purpose of collecting a representative groundwater sample.

Purged groundwater was collected in DOT-approved drums for storage on site, or stored in an on-site PolyTank.

Groundwater samples were collected from all wells using a Teflon disposable bailer suspended by a clean (new) length of rope. Groundwater samples were decanted from the bailer into appropriate laboratory-supplied 40-milliliter vials using a bottom decanting petcock device. The containers were sealed, labeled, and placed in a chilled cooler for delivery to the analytical laboratory. Strict chain-of-custody protocol was followed throughout the sample handling process.

MEASUREMENT OF GROUNDWATER ELEVATION

After the groundwater monitoring wells were installed, the top of each well casing was surveyed for vertical and horizontal control by a licensed surveyor. Elevation was surveyed to the nearest 0.01 foot mean sea level. Horizontal control was tied to a United States Geological Survey or Los Angeles County benchmark.

An electronic water-level meter was used to measure the depth to groundwater to the nearest 0.01 foot in each well. Groundwater elevations were calculated and used to construct a groundwater elevation contour map from which the direction of groundwater flow and gradient could be evaluated.

APPENDIX B

LABORATORY CERTIFICATES AND CHAIN-OF-CUSTODY DOCUMENTATION

ANALYTICAL REPORT

COPY

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LOG NO: G97-01-277

Received: 17 JAN 97

Mailed: JAN 30 1997

Mr. Dave Field
Levine-Fricke-Recon
1920 Main Street, Suite 750
Irvine, CA 92614-7211

Requisition: N-6019
Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-1	MW5-11697	16 JAN 97
01-277-2	MW4-11697	16 JAN 97
01-277-3	P3-11697	16 JAN 97
01-277-4	MW1-11697	16 JAN 97
01-277-5	MW6-11697	16 JAN 97

PARAMETER	01-277-1	01-277-2	01-277-3	01-277-4	01-277-5
Halocarbons (8010)					
Date Analyzed	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97
Date Confirmed	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97
Dilution Factor, Times	1	1	1	1	1
1,1,1-Trichloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	0.57
1,1-Dichloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform, ug/L	<0.5	<0.5	0.84	<0.5	<0.5
Chloromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane, ug/L	<0.5	<0.5	<0.5	<0.5	[illegible]
Freon 113, ug/L	<0.5	2.2	7.3	3.8	[illegible]

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Irvine, CA 92614-7211

Requisition: N-6019
Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-1	MW5-11697	16 JAN 97
01-277-2	MW4-11697	16 JAN 97
01-277-3	P3-11697	16 JAN 97
01-277-4	MW1-11697	16 JAN 97
01-277-5	MW6-11697	16 JAN 97

PARAMETER	01-277-1	01-277-2	01-277-3	01-277-4	01-277-5
Methylene chloride, ug/L	<2	<2	<2	<2	<2
Trichloroethene, ug/L	<0.5	2.1	<0.5	3.3	91
Trichlorofluoromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene, ug/L	<0.5	5.2	<0.5	7.4	1.9
Vinyl chloride, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	1.6
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogates **					
Bromochloromethane Reported, ug/L	46.3	42.1	46.8	46.7	44.0
Bromochloromethane Theoretical, ug/L	50.0	50.0	50.0	50.0	50.0

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Requisition: N-6019
Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-6	MW7-11697	16 JAN 97
01-277-7	DUP-11697	16 JAN 97
01-277-8	DUP-11797	17 JAN 97
01-277-9	MW2-11797	17 JAN 97
01-277-10	P2-11797	17 JAN 97

PARAMETER	01-277-6	01-277-7	01-277-8	01-277-9	01-277-10
Halocarbons (8010)					
Date Analyzed	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97
Date Confirmed	01/23/97	01/23/97	01/23/97	01/23/97	01/23/97
Dilution Factor, Times	1	1	1	1	1
1,1,1-Trichloroethane, ug/L	<0.5	<0.5	1.4	<0.5	9.0
1,1,2,2-Tetrachloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane, ug/L	3.0	<0.5	0.86	3.6	11
1,1-Dichloroethene, ug/L	72	0.93	55	14	68
1,2-Dichloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5

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Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-6	MW7-11697	16 JAN 97
01-277-7	DUP-11697	16 JAN 97
01-277-8	DUP-11797	17 JAN 97
01-277-9	MW2-11797	17 JAN 97
01-277-10	P2-11797	17 JAN 97

PARAMETER	01-277-6	01-277-7	01-277-8	01-277-9	01-277-10
Freon 113, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride, ug/L	<2	<2	<2	<2	<2
Trichloroethene, ug/L	45	90	17	81	100
Trichlorofluoromethane, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene, ug/L	1.6	1.9	61	3.8	130
Vinyl chloride, ug/L	1.0	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene, ug/L	3.5	1.5	0.71	1.4	8.2
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogates **					
Bromochloromethane Reported, ug/L	43.6	43.9	48.2	48.5	49.9
Bromochloromethane Theoretical, ug/L	50.0	50.0	50.0	50.0	50.0

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Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-11	MW3-11797	17 JAN 97

PARAMETER	01-277-11
Halocarbons (8010)	
Date Analyzed	01/23/97
Date Confirmed	01/23/97
Dilution Factor, Times	1
1,1,1-Trichloroethane, ug/L	1.4
1,1,2,2-Tetrachloroethane, ug/L	<0.5
1,1,2-Trichloroethane, ug/L	<0.5
1,1-Dichloroethane, ug/L	0.90
1,1-Dichloroethene, ug/L	41
1,2-Dichloroethane, ug/L	<0.5
1,2-Dichlorobenzene, ug/L	<0.5
1,2-Dichloropropane, ug/L	<0.5
1,3-Dichlorobenzene, ug/L	<0.5
1,4-Dichlorobenzene, ug/L	<0.5
Bromodichloromethane, ug/L	<0.5
Bromomethane, ug/L	<0.5
Bromoform, ug/L	<0.5
Chlorobenzene, ug/L	<0.5
Carbon Tetrachloride, ug/L	<0.5
Chloroethane, ug/L	<0.5
Chloroform, ug/L	<0.5
Chloromethane, ug/L	<0.5
Dibromochloromethane, ug/L	<0.5
Freon 113, ug/L	<0.5
Methylene chloride, ug/L	<2
Trichloroethene, ug/L	18
Trichlorofluoromethane, ug/L	<0.5

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Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-11	MW3-11797	17 JAN 97

PARAMETER	01-277-11
Tetrachloroethene, ug/L	61
Vinyl chloride, ug/L	<0.5
cis-1,2-Dichloroethene, ug/L	0.71
cis-1,3-Dichloropropene, ug/L	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5
Surrogates **	
Bromochloromethane Reported, ug/L	47.5
Bromochloromethane Theoretical, ug/L	50.0

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Requisition: N-6019
Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-12	EQBL2-11697	16 JAN 97
01-277-13	EQBL2-11797	17 JAN 97

PARAMETER	01-277-12	01-277-13
Halocarbons (8010)		
Date Analyzed	01/23/97	01/23/97
Date Confirmed	01/23/97	01/23/97
Dilution Factor, Times	1	1
1,1,1-Trichloroethane, ug/L	<0.5	<0.5
1,1,2,2-Tetrachloroethane, ug/L	<0.5	<0.5
1,1,2-Trichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethane, ug/L	<0.5	<0.5
1,1-Dichloroethene, ug/L	<0.5	<0.5
1,2-Dichloroethane, ug/L	<0.5	<0.5
1,2-Dichlorobenzene, ug/L	<0.5	<0.5
1,2-Dichloropropane, ug/L	<0.5	<0.5
1,3-Dichlorobenzene, ug/L	<0.5	<0.5
1,4-Dichlorobenzene, ug/L	<0.5	<0.5
Bromodichloromethane, ug/L	<0.5	<0.5
Bromomethane, ug/L	<0.5	<0.5
Bromoform, ug/L	<0.5	<0.5
Chlorobenzene, ug/L	<0.5	<0.5
Carbon Tetrachloride, ug/L	<0.5	<0.5
Chloroethane, ug/L	<0.5	<0.5
Chloroform, ug/L	<0.5	<0.5
Chloromethane, ug/L	<0.5	<0.5
Dibromochloromethane, ug/L	<0.5	<0.5
Freon 113, ug/L	<0.5	<0.5
Methylene chloride, ug/L	<2	5.3
Trichloroethene, ug/L	<0.5	<0.5

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Requisition: N-6019
Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-12	EQBL2-11697	16 JAN 97
01-277-13	EQBL2-11797	17 JAN 97

PARAMETER	01-277-12	01-277-13
Trichlorofluoromethane, ug/L	<0.5	<0.5
Tetrachloroethene, ug/L	<0.5	<0.5
Vinyl chloride, ug/L	<0.5	<0.5
cis-1,2-Dichloroethene, ug/L	<0.5	<0.5
cis-1,3-Dichloropropene, ug/L	<0.5	<0.5
trans-1,2-Dichloroethene, ug/L	<0.5	<0.5
trans-1,3-Dichloropropene, ug/L	<0.5	<0.5
Surrogates **		
Bromochloromethane Reported, ug/L	55.3	57.3
Bromochloromethane Theoretical, ug/L	50.0	50.0

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Irvine, CA 92614-7211

Requisition: N-6019
Project: 2455.00-14

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-277-14	TRIP BLANK #60815	16 JAN 97

PARAMETER	01-277-14
Sample Held, Not Analyzed	HOLD

Vinyl Chloride and Methylene Chloride were reported in trace amounts. The results were checked and confirmed prior to reporting.
-- H. Cochran 1/29/97

Hal Cochran for GG

Greta Galoustian, Laboratory Director

The analytical results within this report relate only to the specific compounds and samples investigated and may not necessarily reflect other apparently similar material from the same or a similar location.

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ORDER PLACED FOR CLIENT: Levine-Fricke-Recon 9701277 :
BC ANALYTICAL : GLEN LAB : 08:38:12 27 JAN 1997 - P. 1 :

PLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
701277*1	MW5-11697	VH.8010	01.23.97	8010	536-28	972007	8171
701277*2	MW4-11697	VH.8010	01.23.97	8010	536-28	972007	8171
701277*3	P3-11697	VH.8010	01.23.97	8010	536-28	972007	8171
701277*4	MW1-11697	VH.8010	01.23.97	8010	536-28	972007	8171
701277*5	MW6-11697	VH.8010	01.23.97	8010	536-28	972007	8171
701277*6	MW7-11697	VH.8010	01.23.97	8010	536-28	972007	8171
701277*7	DUP-11697	VH.8010	01.23.97	8010	536-28	972007	8171
701277*8	DUP-11797	VH.8010	01.23.97	8010	536-28	972007	8171
701277*9	MW2-11797	VH.8010	01.23.97	8010	536-28	972007	8171
701277*10	P2-11797	VH.8010	01.23.97	8010	536-28	972007	8171
701277*11	MW3-11797	VH.8010	01.23.97	8010	536-28	972007	8171
701277*12	EQBL2-11697	VH.8010	01.23.97	8010	536-34	973009	8171
701277*13	EQBL2-11797	VH.8010	01.23.97	8010	536-34	973009	8171
701277*14	TRIP BLANK #60815	HOLD	01.27.97				7362

**

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 08:47:42 27 JAN 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9701277*1							
8010	Bromochloromethane	972007	01/23/97	46.3	50.0	93	
9701277*2							
8010	Bromochloromethane	972007	01/23/97	42.1	50.0	84	
9701277*3							
8010	Bromochloromethane	972007	01/23/97	46.8	50.0	94	
9701277*4							
8010	Bromochloromethane	972007	01/23/97	46.7	50.0	93	
9701277*5							
8010	Bromochloromethane	972007	01/23/97	44.0	50.0	88	
9701277*6							
8010	Bromochloromethane	972007	01/23/97	43.6	50.0	87	
9701277*7							
8010	Bromochloromethane	972007	01/23/97	43.9	50.0	88	
9701277*8							
8010	Bromochloromethane	972007	01/23/97	48.2	50.0	96	
9701277*9							
8010	Bromochloromethane	972007	01/23/97	48.5	50.0	97	
9701277*10							
8010	Bromochloromethane	972007	01/23/97	49.9	50.0	100	
9701277*11							
8010	Bromochloromethane	972007	01/23/97	47.5	50.0	95	
9701277*12							
8010	Bromochloromethane	973009	01/23/97	55.3	50.0	111	
9701277*13							
8010	Bromochloromethane	973009	01/23/97	57.3	50.0	115	

SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 08:47:48 27 JAN 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
701384*1*R1							
602	a,a,a-Trifluorotoluene	Re972007	01/23/97	45.0	50.0	90	
601	Bromochloromethane	972007	01/23/97	48.2	50.0	96	
9701384*1*S1							
602	a,a,a-Trifluorotoluene	Re972007	01/23/97	45.8	50.0	92	
601	Bromochloromethane	972007	01/23/97	43.2	50.0	86	
701384*1*S2							
602	a,a,a-Trifluorotoluene	Re972007	01/23/97	46.1	50.0	92	
601	Bromochloromethane	972007	01/23/97	43.2	50.0	86	
9701384*1*T							
602	a,a,a-Trifluorotoluene	Re972007	01/23/97	50.0	50.0	100	
601	Bromochloromethane	972007	01/23/97	50.0	50.0	100	
701924*1*MB							
601	Bromochloromethane	972007	01/22/97	46.0	50.0	92	
01932*1*MB							
010	Bromochloromethane	973009	01/23/97	51.4	50.0	103	
7011861*1*LC							
601	Bromochloromethane	972007	01/22/97	41.2	50.0	82	
7011861*1*LT							
601	Bromochloromethane	972007	01/22/97	50.0	50.0	100	
7011882*1*LC							
010	Bromochloromethane	973009	01/23/97	51.9	50.0	104	
7011882*1*LT							
010	Bromochloromethane	973009	01/23/97	50.0	50.0	100	

BC A ICAL, GLENDALE
QC REPORT FOR 9701277
DATE PRINTED: 27 JAN 1997

AQUEOUS SAMPLES

		METHOD BLANK			LAB CONTROL									MATRIX QC								
					LCS		LCSD				RPD	RPD		MS		MSD				RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: VH*972007 Method: 8010 - Halogenated Volatile Organics																						
1,1,1-Trichloroethane	ug/L	0	0.5	-	81	-	-	-	61	138	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	0	0.5	-	93	-	-	-	42	141	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	0	0.5	-	83	-	-	-	57	133	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	0	0.5	-	78	-	-	-	65	130	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	ug/L	0	0.5	-	97	-	-	-	54	138	-	-	-	80	-	83	-	50	147	3	27	-
1,2-Dichloroethane	ug/L	0	0.5	-	81	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	ug/L	0	0.5	-	94	-	-	-	64	128	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	0	0.5	-	80	-	-	-	53	147	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	0	0.5	-	94	-	-	-	63	130	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	0.36	0.5	-	96	-	-	-	69	133	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	0	0.5	-	82	-	-	-	70	130	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	ug/L	0	0.5	-	101	-	-	-	39	133	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	0	0.5	-	99	-	-	-	53	133	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	0	0.5	-	85	-	-	-	61	135	-	-	-	94	-	93	-	61	139	0	19	-
Carbon Tetrachloride	ug/L	0	0.5	-	78	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	0	0.5	-	86	-	-	-	46	137	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	0	0.5	-	80	-	-	-	65	133	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	ug/L	0	0.5	-	91	-	-	-	1	160	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	0	0.5	-	94	-	-	-	65	127	-	-	-	-	-	-	-	-	-	-	-	-
Freon 113	ug/L	0	0.5	-	82	-	-	-	37	152	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/L	0	2	-	78	-	-	-	57	137	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	ug/L	0	0.5	-	78	-	-	-	63	141	-	-	-	81	-	83	-	52	162	3	43	-
Trichlorofluoromethane	ug/L	0	0.5	-	112	-	-	-	42	154	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	0	0.5	-	81	-	-	-	64	139	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	ug/L	0	0.5	-	105	-	-	-	40	144	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	0	0.5	-	79	-	-	-	63	129	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	0	0.5	-	84	-	-	-	65	132	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	0	0.5	-	77	-	-	-	59	139	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	0	0.5	-	86	-	-	-	60	130	-	-	-	-	-	-	-	-	-	-	-	-
[Bromochloromethane]	Percent	92	-	-	82	-	-	-	69	140	-	-	-	86	-	86	-	69	140	-	-	-

BC ANALYTICAL, GLENDALE
QC REPORT FOR 9701277
DATE PRINTED: 27 JAN 1997

AQUEOUS SAMPLES

		METHOD BLANK			LAB CONTROL									MATRIX QC								
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: VH*973009 Method: 8010 - Halogenated Volatile Organics																						
1,1,1-Trichloroethane	ug/L	0.13	0.5	-	106	-	-	-	61	138	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	0.40	0.5	-	99	-	-	-	42	141	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	0	0.5	-	108	-	-	-	57	133	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	0	0.5	-	108	-	-	-	65	130	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	ug/L	0	0.5	-	100	-	-	-	54	138	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	0	0.5	-	111	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	ug/L	0	0.5	-	106	-	-	-	64	128	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	0	0.5	-	101	-	-	-	53	147	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	0	0.5	-	105	-	-	-	63	130	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	0	0.5	-	106	-	-	-	69	133	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	0	0.5	-	101	-	-	-	70	130	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	ug/L	0	0.5	-	95	-	-	-	39	133	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	0	0.5	-	99	-	-	-	53	133	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	0	0.5	-	106	-	-	-	61	135	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	0	0.5	-	105	-	-	-	64	132	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	0	0.5	-	104	-	-	-	46	137	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	0	0.5	-	104	-	-	-	65	133	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	ug/L	0	0.5	-	206	Q	-	-	1	160	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	0	0.5	-	103	-	-	-	65	127	-	-	-	-	-	-	-	-	-	-	-	-
Freon 113	ug/L	0	0.5	-	109	-	-	-	37	152	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/L	0	2	-	102	-	-	-	57	137	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	ug/L	0	0.5	-	108	-	-	-	63	141	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	ug/L	0	0.5	-	79	-	-	-	42	154	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	0	0.5	-	109	-	-	-	64	139	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	ug/L	0	0.5	-	96	-	-	-	40	144	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	0	0.5	-	110	-	-	-	63	129	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	0	0.5	-	109	-	-	-	65	132	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	0	0.5	-	106	-	-	-	59	139	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	0	0.5	-	110	-	-	-	60	130	-	-	-	-	-	-	-	-	-	-	-	-
[Bromochloromethane]	Percent	103	-	-	104	-	-	-	69	140	-	-	-	-	-	-	-	-	-	-	-	-

[redacted]C ANA[redacted], [redacted]DALE [redacted] PAG[redacted]

SUPPLEMENTAL QC REPORT FOR 9701277

DATE PRINTED: 27 JAN 1997

AQUEOUS SAMPLES

Batch: VH*972007 Method: 8010 - Halogenated Volatile Organics

		B701924*1	C7011861*1	.....	N/A	.....	9701384*1	.....	.....	.....	.....
	UNITS	MB	LC	LT	LC	LT	R1	R2	S1	S2	T
Date Analyzed	Date	01/22/97	01/22/97	01/22/97	-	-	01/23/97	-	01/23/97	01/23/97	01/23/97
Date Confirmed	-	-	-	-	-	-	-	-	-	-	-
Dilution Factor	Times	1	1	1	-	-	1	-	1	1	1
1,1,1-Trichloroethane	ug/L	0	40.6	50.0	-	-	<0.5	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	0	46.3	50.0	-	-	<0.5	-	-	-	-
1,1,2-Trichloroethane	ug/L	0	41.7	50.0	-	-	<0.5	-	-	-	-
1,1-Dichloroethane	ug/L	0	39.2	50.0	-	-	<0.5	-	-	-	-
1,1-Dichloroethene	ug/L	0	48.6	50.0	-	-	<0.5	-	40.2	41.6	50.0
1,2-Dichloroethane	ug/L	0	40.5	50.0	-	-	3.1	-	-	-	-
1,2-Dichlorobenzene	ug/L	0	47.1	50.0	-	-	<0.5	-	-	-	-
1,2-Dichloropropane	ug/L	0	40.2	50.0	-	-	<0.5	-	-	-	-
1,3-Dichlorobenzene	ug/L	0	46.9	50.0	-	-	<0.5	-	-	-	-
1,4-Dichlorobenzene	ug/L	0.36	47.8	50.0	-	-	<0.5	-	-	-	-
Bromodichloromethane	ug/L	0	40.9	50.0	-	-	<0.5	-	-	-	-
Bromomethane	ug/L	0	50.5	50.0	-	-	<0.5	-	-	-	-
Bromoform	ug/L	0	49.3	50.0	-	-	<0.5	-	-	-	-
Chlorobenzene	ug/L	0	42.7	50.0	-	-	<0.5	-	46.9	46.7	50.0
Carbon Tetrachloride	ug/L	0	38.8	50.0	-	-	<0.5	-	-	-	-
Chloroethane	ug/L	0	43.2	50.0	-	-	<0.5	-	-	-	-
Chloroform	ug/L	0	40.0	50.0	-	-	<0.5	-	-	-	-
Chloromethane	ug/L	0	45.4	50.0	-	-	<0.5	-	-	-	-
Dibromochloromethane	ug/L	0	47.0	50.0	-	-	<0.5	-	-	-	-
Freon 113	ug/L	0	41.0	50.0	-	-	<0.5	-	-	-	-
Methylene chloride	ug/L	0	38.9	50.0	-	-	<2	-	-	-	-
Trichloroethene	ug/L	0	39.2	50.0	-	-	<0.5	-	40.4	41.7	50.0
Trichlorofluoromethane	ug/L	0	55.9	50.0	-	-	<0.5	-	-	-	-
Tetrachloroethene	ug/L	0	40.7	50.0	-	-	<0.5	-	-	-	-
Vinyl chloride	ug/L	0	52.3	50.0	-	-	<0.5	-	-	-	-
cis-1,2-Dichloroethene	ug/L	0	39.5	50.0	-	-	<0.5	-	-	-	-
cis-1,3-Dichloropropene	ug/L	0	42.2	50.0	-	-	<0.5	-	-	-	-
trans-1,2-Dichloroethene	ug/L	0	38.4	50.0	-	-	<0.5	-	-	-	-
trans-1,3-Dichloropropene	ug/L	0	43.0	50.0	-	-	<0.5	-	-	-	-
Bromochloromethane Reported	ug/L	46.0	41.2	50.0	-	-	48.2	-	43.2	43.2	50.0
Bromochloromethane Theoretical	ug/L	50.0	50.0	50.0	-	-	50.0	-	50.0	50.0	50.0

BC ANA...ICAL, GLENDALE

SUPPLEMENTAL QC REPORT FOR 9701277

DATE PRINTED: 27 JAN 1997

AQUEOUS SAMPLES

Batch: VH*973009 Method: 8010 - Halogenated Volatile Organics

		B701932*1	C7011882*1	.....	N/A		N/A	.....	.....	.....	.....
	UNITS	MB	LC	LT	LC	LT	R1	R2	S1	S2	T
Date Analyzed	Date	01/23/97	01/23/97	01/23/97	-	-	-	-	-	-	-
Date Confirmed	Date	01/23/97	01/23/97	01/23/97	-	-	-	-	-	-	-
Dilution Factor	Times	1	1	1	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	0.13	53.1	50.0	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	0.40	49.6	50.0	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	0	53.9	50.0	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	0	54.0	50.0	-	-	-	-	-	-	-
1,1-Dichloroethene	ug/L	0	50.1	50.0	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	0	55.3	50.0	-	-	-	-	-	-	-
1,2-Dichlorobenzene	ug/L	0	52.8	50.0	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	0	50.6	50.0	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	0	52.4	50.0	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	0	53.2	50.0	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	0	50.6	50.0	-	-	-	-	-	-	-
Bromomethane	ug/L	0	47.7	50.0	-	-	-	-	-	-	-
Bromoform	ug/L	0	49.3	50.0	-	-	-	-	-	-	-
Chlorobenzene	ug/L	0	52.9	50.0	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	0	52.7	50.0	-	-	-	-	-	-	-
Chloroethane	ug/L	0	52.1	50.0	-	-	-	-	-	-	-
Chloroform	ug/L	0	51.9	50.0	-	-	-	-	-	-	-
Chloromethane	ug/L	0	103	50.0	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	0	51.3	50.0	-	-	-	-	-	-	-
Freon 113	ug/L	0	54.5	50.0	-	-	-	-	-	-	-
Methylene chloride	ug/L	0	50.9	50.0	-	-	-	-	-	-	-
Trichloroethene	ug/L	0	54.2	50.0	-	-	-	-	-	-	-
Trichlorofluoromethane	ug/L	0	39.4	50.0	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	0	54.7	50.0	-	-	-	-	-	-	-
Vinyl chloride	ug/L	0	48.2	50.0	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	0	54.9	50.0	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	0	54.3	50.0	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	0	53.2	50.0	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	0	54.8	50.0	-	-	-	-	-	-	-
Bromochloromethane Reported	ug/L	51.4	51.9	50.0	-	-	-	-	-	-	-
Bromochloromethane Theoretical	ug/L	50.0	50.0	50.0	-	-	-	-	-	-	-

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

G97-01-277

Project No.: 2455.00-14	Field Logbook No.:	Date: 1/16/97	Serial No.: Nº N- 6019
Project Name: Calmar	Project Location: City of Industry		
Sampler (Signature): Thea Schuhmacher			Samplers: TTS, TWT

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	8010				HOLD	RUSH	REMARKS
MW5-11697	1/16/97	9:30	69701277-1	2	water			✓						Results to Dave Field
MW4-11697		~~10:10~~ 12:40	-2	2				✓						Regular TAT
EQBL2-11697		11:00	-12	2				✓						
P3-11697		12:50	-3	2				✓						
MW1-11697		1:27	-4	2				✓						
MW6-11697		3:47	-5	2				✓						
MW7-11697		3:53	-6	2				✓						
DUP-11697	↓		-7	2				✓						
DUP-11797	1/17/97		-8	2				✓						
EQBL2-11797		9:20	-13	2				✓						
MW2-11797		10:15	-9	2				✓						
P2-11797		10:27	-10	2				✓						
MW3-11797	↓	10:35	-11	2				✓						
TB 60815														

RELINQUISHED BY: (Signature) Thea Schuhmacher	DATE 1/17/97	TIME 11:20	RECEIVED BY: (Signature)	DATE 1/17/97	TIME 11:20
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:

LEVINE-FRICKE
1920 Main Street, Suite 750
Irvine, California 92714
(714) 955-1390 FAX (714) 955-0683

Analytical Laboratory: BC Analytical

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