



Metropolitan Edison Company
Post Office Box 480
Middletown, Pennsylvania 17057

Writer's Direct Dial Number

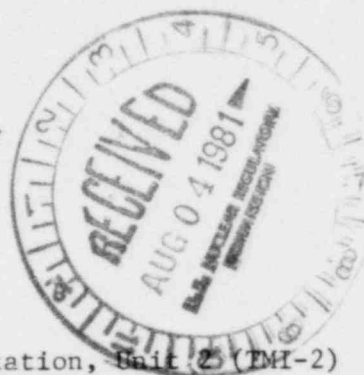
July 25, 1981
LL2-81-0181

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U.S. NUCLEAR
REGULATORY COMMISSION

TMI Program Office
Attn: Mr. Lake H. Barrett, Deputy Director
U. S. Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, Pennsylvania 17057



Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Containment Integrity Assessment Program

This is the third periodic report presenting results of our ongoing efforts to detect potential radioactive water leakage from the containment building. Although this information is being provided periodically (approximately monthly), we will verbally inform you of any unusual conditions that may be encountered between written reports, as you requested.

The status of the various portions of this program are discussed below.

Groundwater Monitoring

The following groundwater monitoring data is attached:

1. Computer tables (Tables 1 and 2) of all tritium data up to and including May 20, 1981.
2. Individual computer graphs of tritium concentrations for each monitoring station (Figure 1).
3. Computer tables (Tables 3 and 4) indicating water levels within the monitoring stations.
4. Computer tables (Tables 5 and 6) of gamma scan data up to and including May 20, 1981.
5. A graph showing the gamma scan results from Monitoring Station MW-2 (Figure 2).
6. A table (Table 7) indicating the tritium results of samples taken from the East Dike Catch Basin.
7. A composite drawing showing all monitoring location with a graph of the tritium concentration for each station.

App
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Tritium concentrations for the reporting period of May 6, 1981 to May 20, 1981 were consistent with values seen in previous samples.

The latest gamma results for all the wells (except MW-2) up to and including May 20, 1981 were normal.

Expedited MW-2 results for the reporting period of May 6, 1981 to June 24, 1981 were normal, except for the May 28, 1981 (12.87 ± 4.11 pCi/l), June 3, 1981 (22.4 ± 4.3 pCi/l), and the June 24, 1981 (7.58 ± 3.73 pCi/l) which showed positive Cs-137 concentrations slightly above the analysis laboratory's lower limit of detection.

The 1980 third quarter Sr-89/90 composite results for all the wells (except OW-15) were reported as being below the laboratory's LLD. A strontium analysis could not be performed on OW-15 since not enough sample was available for testing. Strontium analyses for fourth quarter 1980 and first quarter 1981 were also negative.

Weekly Sr-89/90 results for MW-1 and MW-2 samples for the period of March 25, 1981 to May 20, 1981 were reported as below the LLD.

The East Dike Catch Basin sample of April 22, 1981 indicated a relatively high tritium concentration of 2560 ± 380 pCi/l. This sample was taken from storm drain piping which originates in the BWST area. This concentration was within the range of tritium concentrations of groundwater in that BWST area. We are continuing to monitor the Catch Basin, as well as investigate the source of the elevated tritium levels.

We have decreased the sampling frequency of the monitoring stations from weekly to monthly beginning July 1, 1981. Our intent to do this was communicated to you in our letter, LL2-81-0144, dated May 22, 1981.

Cork Seal, Tendon Access Gallery, and Containment Outer Wall Radiation Monitoring

Weekly surveys of the tendon access gallery, cork seal and outer wall have shown no indication of containment leakage.

Cork Seal Water Level

As mentioned in our last periodic report (LL2-81-0170, dated July 2, 1981), we noted a correlation between cork seal water level and precipitation on the island and therefore have discontinued this monitoring program.

Roof flashing repair work is currently in the bid evaluation stage. Completion of this work will be reported in a subsequent report.

Annulus Water

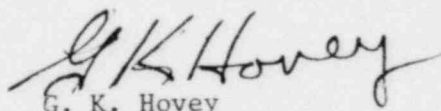
On June 12, 1981, an operator, while performing a containment surveillance in the north Reactor Building annulus area, noted a puddle of water (approximately 10-15 gallons) on the 281' elevation floor. Subsequent inspection of the area detected no moving water except for a small drip from a fire service valve. We believe the most probable cause of this water is a poor weather seal between

the Aux/Fuel Handling Buildings and the Reactor Building, allowing rain water to leak into the annulus area. One quarter inch ($\frac{1}{4}$ ") of rain was recorded on the island over June 9 and 10, 1981. This weather seal will be repaired along with the roof flashing.

Reactor Building Sump Water Level

Figure 3 presents sump level data for the period January 1, 1980 through July 1, 1981. Sump level measurements continue to correspond to predicted levels within the accuracy of the measuring technique.

Sincerely,



G. K. Hovey
Vice-President and
Director, TMI-2

GKH:JJB:djb

Attachments

cc: Dr. B. J. Snyder, Program Director, TMI Program Office

LIST OF ATTACHMENTS

List of Tables

- Table 1 - Tritium Concentrations of Monitoring Station Samples from MW-1 to MW-8.
- Table 2 - Tritium Concentrations of Monitoring Station Samples from OW-9 to OW-17.
- Table 3 - Water Levels of Monitoring Stations MW-1 to MW-8.
- Table 4 - Water Levels of Monitoring Stations OW-9 to OW-17.
- Table 5 - Cesium-137 Concentrations of Monitoring Stations MW-1 to MW-8.
- Table 6 - Cesium-134 Concentrations of Monitoring Stations MW-1 to MW-8.
- Table 7 - Tritium Results from East Dike Catch Basin.

List of Figures

- Figure 1 - Graphs of Tritium Concentrations of Monitoring Station Samples versus Time.
- Figure 2 - Gamma Scan Results for Monitoring Station MW-2 versus Time.
- Figure 3 - TMI Unit II Reactor Building Sump Level.

Drawing

- *Groundwater Tritium Concentrations as Site Liquid Monitoring Stations.

REPORT NO. 22

DATE, July 2, 1981

GPU ENVIRONMENTAL CONTROLS GROUP
TRITIUM CONCENTRATION (PCI/L)

DATE OF SAMPLE	M.V. 1 H-3 +/-	M.V. 2 H-3 +/-	M.V. 3 H-3 +/-	M.V. 4 H-3 +/-	M.V. 5 H-3 +/-	M.V. 6 H-3 +/-	M.V. 7 H-3 +/-	M.V. 8 H-3 +/-
January 26, 1980				170				
February 20, 1980		200	00					
February 25, 1980	1530	150				280		
February 29, 1980				250	00			
March 5, 1980								160
March 7, 1980								
March 11, 1980	200							
March 26, 1980				200	80		300	80
March 27, 1980		370	80					
March 27, 1980		560	110					
March 28, 1980	2500	180				000	100	
March 28, 1980						560	100	
April 1, 1980	000							870
April 2, 1980	1550	100	300			430	80	
April 2, 1980	1770	140	240			310	80	
April 3, 1980					20	70		
April 3, 1980					300			
April 9, 1980	1530	160	770	110	80	70	260	80
April 11, 1980								640
April 12, 1980								
April 13, 1980								
April 14, 1980								
April 15, 1980								
April 16, 1980								
April 17, 1980								

CPU ENVIRONMENTAL CONTROLS GROUP
 TRITIUM CONCENTRATION (PCI/L)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8
April 18, 1980	120	838	320	284	120	106	160	352
April 19, 1980	130	408	80	360	70	350	70	310
May 2, 1980	260	016	100	380	80	260	80	280
May 8, 1980	100	670	00	310	00	130	80	270
May 16, 1980	170	880	80	520	130	200	80	380
May 23, 1980	140	850	80	820	100	250	90	200
May 30, 1980	200	050	100	670	120	270	00	380
June 6, 1980	220	710	80	580	80	370	100	860
June 13, 1980	100			470	120	230	00	260
June 20, 1980	230	1480	110	400	80	320	80	320
June 27, 1980	240	1310	180	450	70	120	50	440
July 7, 1980	160	1900	100	510	130	250	00	370
July 10, 1980	180	2130	210	560	130	200	00	310
July 25, 1980	190	1030	100	300		260	00	330
July 30, 1980	180	2560	260	420	20	250	00	340
August 6, 1980	130	1360	140	440	120	280	00	250
August 13, 1980	130	1000	180	410	70	240	00	270
August 20, 1980	180	3010	300	500	130			370
August 27, 1980	600	3050	400	930	00	270	00	250
September 3, 1980	240	4480	270	1050	180	770	180	300
September 10, 1980	370	4380	260	970	150	460	00	740
September 17, 1980	920	4040	300	1030	130	600	00	470
September 24, 1980	170	4200	280	930	180	280	80	450
October 1, 1980	100	3540	350	1770	180	110	00	300
October 8, 1980								

GPU ENVIRONMENTAL CONTROLS GROUP
TRITIUM CONCENTRATION (PCI/L)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8								
October 15, 1980	178	78	3528	538	1778	278	748	128	208	88	348	98	428	108	388	08
October 22, 1980	168	78	2928	448	1878	288	788	128	208	88	338	98	408	108	488	108
October 29, 1980	168	78	3178	438	1678	258	618	128	308	98	328	98	328	98	478	108
November 5, 1980	168	78	2888	318	1628	248	578	188	258	88	278	88	208	88	818	148
November 12, 1980	168	78	2488	368	2858	318	748	128	198	78	358	98	328	98	518	108
November 19, 1980	278	98	2688	208	2258	148	588	188	318	128	548	188	448	138	278	108
November 26, 1980	128	78	2058	448	3628	548	318	98	178	78	228	88	268	88	518	108
December 3, 1980	268	78	3418	238	2128	188	458	78	288	108	328	118	348	78	368	78
December 10, 1980	118	78	2758	418	2038	308	478	188	278	88	258	88	238	88	368	08
December 17, 1980	138	78	2118	328	2388	368	428	188	308	98	288	88	278	88	428	108
December 24, 1980	148	78	2618	308	2228	338	318	98	308	98	348	98	308	98	418	108
December 31, 1980	178	78	2498	378	2228	338	318	98	308	98	378	98	268	88	448	108
January 7, 1981	108	78	2788	288	838	148	348	98	348	98	378	98	318	98	428	108
January 14, 1981	168	78	2188	188	2288	188	368	98	368	98	378	98	278	78	448	108
January 21, 1981	188	78	2888	138	2088	318	428	188	428	188	428	188	318	98	588	188
January 28, 1981	228	88	1908	148	2198	338	308	98	308	98	288	88	208	88	458	188
February 4, 1981	138	78	2568	168	1588	248	448	188	468	188	358	98	318	98	458	188
February 11, 1981	148	78	2368	108	1008	208	448	188	468	188	318	98	268	88	488	188
February 18, 1981	158	78	2888	188	1558	238	448	188	468	188	318	98	268	88	428	188
February 25, 1981	158	78	1408	138	1818	158	488	188	308	98	318	98	298	88	338	98
March 4, 1981	148	78	1158	98	768	128	2458	378	308	98	288	88	258	88	338	98
March 11, 1981	128	78	1548	118	688	128	1528	238	318	98	318	98	238	88	298	88
March 18, 1981	228	78	2758	178	458	88	2618	168	338	108	228	88	258	88	228	98
March 25, 1981	188	78	2308	158	1118	128	2628	178	338	88	288	88	328	88	348	78
April 1, 1981	128	98	2308	158	1118	128	2628	178	338	88	288	88	328	88	348	78

GPU ENVIRONMENTAL CONTROLS GROUP
TRITIUM CONCENTRATION (PCI/L)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8
Apr 11 8, 1981	200	2150	130	1140	170	2330	350	340
Apr 11 15, 1981	150	70	1430	120	1330	200	1000	100
Apr 11 22, 1981	110	70	1310	100	1010	150	1020	150
Apr 11 20, 1981	150	70	1330	100	1700	260	570	100
May 6, 1981	170	70	1400	120	1000	200	520	100
May 13, 1981	160	70	1070	100	1050	200	460	100
May 20, 1981	120	00	1270	100	1770	270	410	100

TABLE 1, PAGE 4

CPU ENVIRONMENTAL CONTROLS GROUP
 TRITIUM CONCENTRATION (PCI/L)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8								
October 15, 1980	178	70	3528	536	1778	278	748	128	208	80	348	00	428	188	368	08
October 22, 1980	168	78	2028	448	1878	288	788	128	208	80	338	08	488	188	488	108
October 29, 1980	168	78	3178	488	1878	258	618	128	308	08	328	08	328	08	478	108
November 5, 1980	168	78	2888	318	1628	248	578	108	258	88	278	88	208	88	818	148
November 12, 1980	168	78	2488	358	2858	318	748	128	198	78	358	08	328	08	518	188
November 19, 1980	278	88	2688	288	2258	148	588	188	318	188	548	188	448	138	278	188
November 26, 1980	128	78	2958	448	3628	548	318	88	178	78	228	88	268	88	518	188
December 3, 1980	268	78	3418	238	2128	188	458	78	288	188	328	118	348	78	368	78
December 10, 1980	118	78	2758	418	2838	388	478	188	278	88	258	88	238	88	368	08
December 17, 1980	138	78	2118	328	2388	368	428	188	308	88	288	88	278	88	428	188
December 24, 1980	148	78	2618	308	308	308	388	88	318	88	238	88	268	88	388	08
December 31, 1980	178	78	2488	378	2228	338	318	88	308	88	348	88	308	88	418	108
January 7, 1981	188	78	2788	288	838	148	348	88	348	88	378	88	268	88	448	108
January 14, 1981	168	78	2188	188	2288	188	368	88	368	88	368	88	318	88	428	108
January 21, 1981	188	78	2888	138	2088	318	348	88	348	88	378	88	278	88	448	108
January 28, 1981	228	88	1688	148	2188	338	428	188	428	188	428	188	318	88	588	108
February 4, 1981	138	78	2568	168	1588	248	308	88	308	88	288	88	208	88	458	108
February 11, 1981	148	78	2368	108	1988	208	368	88	368	88	358	88	318	88	488	108
February 18, 1981	158	78	2888	108	1838	238	448	188	468	188	318	88	268	88	488	108
February 25, 1981	158	78	1428	138	1818	158	488	188	308	88	318	88	208	88	428	108
March 4, 1981	148	78	1158	88	768	128	2458	128	378	308	288	88	258	88	338	88
March 11, 1981	128	78	1548	118	688	128	1528	128	238	318	318	88	208	88	368	88
March 18, 1981	228	78	78	78	718	118	2108	148	368	78	338	78	208	88	228	88
March 25, 1981	188	78	2768	178	458	88	2618	168	338	188	228	88	258	88	348	78
April 1, 1981	128	88	2388	158	1118	128	2628	178	338	88	288	88	328	88	348	78

GPU ENVIRONMENTAL CONTROLS GROUP
TRITIUM CONCENTRATION (PCI/L)

DATE OF SAMPLE	O.V. 0	H-3	O.V. 18	H-3	O.V. 13B	H-3	O.V. 14	H-3	O.V. 15	H-3	O.V. 16	H-3	O.V. 17
April 25, 1980	2610	160	1480	100									
May 2, 1980	350	90	170	90							1800	110	3210
May 8, 1980	328	70	430	90	1320	120	200	90	200	90	1830	110	3220
May 16, 1980	440	80	350	70	440	70	1280	110	150	80	1120	110	3560
May 23, 1980	200	100	360	110	360	110	1230	120	150	80	950	80	3620
May 30, 1980	360	110	430	120	400	120	1270	130	130	80	770	110	3580
June 6, 1980	370	110	300	110	350	110	830	80	190	80	770	110	3710
June 14, 1980	270	100	450	80	300	90	730	90	220	90	500	100	3830
June 20, 1980	320	110	380	110	350	110	610	120	180	80	820	80	3620
June 27, 1980	400	80	310	90	300	90	640	100			760	100	3010
July 7, 1980	560	110	910	60	410	60	540	100	210	80	580	90	4180
July 18, 1980	500	130	680	120	370	110	670	120	150	80	680	120	3620
July 25, 1980	400	120	340	110	200	90	510	130	140	80	720	110	4630
July 30, 1980	550	130	880	80	350	110	530	130			710	110	3830
August 6, 1980	410	120			180	80	430	120			780	110	3570
August 13, 1980	570	130			220	90	440	120			800	90	3540
August 20, 1980	810	80			420	120	470	120			950	100	3740
August 27, 1980	2420	240	1900	100	320	110	530	130			960	100	3360
September 3, 1980	910	90	1050	200	340	110	700	110			1180	110	3670
September 10, 1980	1160	100	230	110	520	120	1830	90			1180	140	4230
September 17, 1980	1050	100	500	80	400	90	1170	100			1400	110	4880
September 24, 1980	1320	100	330	70	930	90	1320	110			1610	130	4100
October 1, 1980	1270	100			260	80	730	80			1370	180	4100
October 8, 1980	1260	130			150	80	640	120			1270	130	3830
October 15, 1980	1200	180	1600	110	510	90	510	100			1270	100	3080

CPU ENVIRONMENTAL CONTROLS GROUP
TRIITIUM CONCENTRATION (PCI/L)

DATE	O.V. 0	O.V. 10	O.V. 13B	O.V. 14	O.V. 15	O.V. 16	O.V. 17
DATE	M-3	M-3	M-3	M-3	M-3	M-3	M-3
October 22, 1980	2078	310	200	80	550	100	860
October 29, 1980	610	120	210	80	560	100	1200
November 5, 1980	1650	250	170	240	460	100	1660
November 12, 1980	1620	240	220	310	310	00	1450
November 19, 1980	700	90	2600	160	140	100	1510
November 26, 1980	340	00	830	140	210	80	1620
December 3, 1980	1840	80	1800	120	340	60	1560
December 10, 1980	1200	150	1300	200	260	80	3200
December 17, 1980	1340	280	1350	200	280	80	3010
December 24, 1980	1340	280	1060	160	200	80	3050
December 31, 1980	780	120	1300	210	300	00	5630
January 7, 1981	770	120	1610	240	340	00	3830
January 14, 1981	1160	170	2360	350	370	00	3850
January 21, 1981	1310	280	1010	200	200	80	2800
January 28, 1981	1180	180	1570	240	430	100	4100
February 4, 1981	700	120	900	110	370	00	4000
February 11, 1981	1810	120	900	80	360	00	3060
February 18, 1981	2680	400	1030	90	500	100	3140
February 25, 1981	6310	380	2770	100	280	80	3010
March 4, 1981	3660	550	2100	130	530	100	3710
March 11, 1981	2940	440	2660	160	440	100	3450
March 18, 1981	3310	220	3100	200	520	00	1820
March 25, 1981	3520	210	2180	130	570	80	1760
April 1, 1981	3330	200	1940	120	500	80	1720
April 8, 1981	2510	380	1060	120	440	100	1510
April 15, 1981	2200	220	240	80	360	00	3630

GPU ENVIRONMENTAL CONTROLS GROUP
TRITIUM CONCENTRATION (PCI/L)

DATE	O.V. 9	O.V. 10	O.V. 11	O.V. 12	O.V. 13	O.V. 14	O.V. 15	O.V. 16	O.V. 17
	2110	170	1740	130	260	70	430	70	1850
Apr 11 15, 1981									3800
	2140	320	1460	100	250	80	440	100	1600
Apr 11 22, 1981									2840
	2050	310	1630	100	250	80	450	100	1760
Apr 11 29, 1981									2980
May 6, 1981	1830	270	1060	150	260	80	460	100	710
May 13, 1981	2080	310	1860	120	310	90	410	100	1510
May 20, 1981	1520	230	2400	130	230	80	370	90	1360
									200
									2050
									180

GPU ENVIRONMENTAL CONTROLS GROUP
WATER LEVEL (MEAN SEA LEVEL)

DATE OF SAMPLE	M.V. 1 WATER LEVEL	M.V. 2 WATER LEVEL	M.V. 3 WATER LEVEL	M.V. 4 WATER LEVEL	M.V. 5 WATER LEVEL	M.V. 6 WATER LEVEL	M.V. 7 WATER LEVEL	M.V. 8 WATER LEVEL
May 9, 1980	284.32	284.07	284.51	284.23	284.11	284.24	284.75	284.81
May 12, 1980	284.86	284.7	284.21	284.12	283.04	283.0	284.43	284.4
May 13, 1980	284.21	285.82	284.44	284.87	283.04	283.80	284.67	284.82
May 14, 1980	284.40	284.01	286.82	284.01	283.01	284.87	284.82	284.81
May 16, 1980	284.52	284.81	284.32	283.05	283.80	284.88		284.75
May 19, 1980	284.33	284.66	284.15	283.01	283.75	283.0	284.08	284.56
May 21, 1980	284.27	285.08	284.22	282.21	284.73	283.70	284.47	284.52
May 22, 1980	284.42	285.28	284.16	283.07	283.81	283.80	284.6	284.66
May 23, 1980	284.40	284.02	284.20	283.03	283.81	283.81	284.62	284.64
May 30, 1980	284	284.38	283.84	283.6	284.4	283.56	284.27	284.22
May 31, 1980	284.86	284.32	283.76	283.54	283.35	283.5	284.12	284.12
June 2, 1980	284.11	284.20	283.83	283.4	283.21	283.26	284.87	284.82
June 4, 1980	283.08	284.2	283.53	283.24	283.18	283.26	283.80	283.84
June 6, 1980	283.00	283.80	283.4	283.10	283.05	283.11	283.82	283.82
June 7, 1980	283.06	283.00	283.31	283.15	283	283.00	283.81	283.81
June 10, 1980	283.70	283.02	283.08	282.12	282.74	282.78	283.47	283.68
June 13, 1980	283.3	284.23	282.87	282.30	282.87	282.87	283.10	283.86
June 17, 1980	283.81	284.42	283.86	282.70	282.62	283.05	283.47	283.94
June 20, 1980	283.80	283.78	282.97	282.38	282.63	282.73	283.80	283.80
June 26, 1980	283.66	283.28	282.63	282.40	282.31	282.44	283.68	283.85
June 27, 1980	283.62	283.24	282.58	282.38	282.17	282.36	283.50	283.48
July 7, 1980	283.77	282.78	281.00	281.80	281.60	281.6	282.40	282.40
July 10, 1980	282.07	282.40	281.84	281.51	281.11	280.03	282.23	281.81
July 20, 1980	283.42	282.75	282.10	281.55	281.58	281.53	283	283.86
July 30, 1980	283.27	282.02	282.86	281.73	281.31	281.50	282.63	282.77

GPU ENVIRONMENTAL CONTROLS GROUP
 WATER LEVEL (MEAN SEA LEVEL)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8
August 6, 1980	282.08	283.16	281.06	281.53	281.1	281.38	282.31	282.47
August 13, 1980	283.1	282.84	282.31	281.73	281.38	282.67	282.47	283.03
August 20, 1980	283.1	282.48	261.84	281.52	281.17	281.51	282.07	282.46
August 27, 1980	282.08	281.20	281.1	288.80		281.07	281.43	281.51
September 3, 1980	282.73	282.82	281.3	288.78	288.46	288.6	281.15	281.18
September 10, 1980	282.67	281.38	288.80	288.61	288.26	288.3	280.71	281
September 17, 1980	282.27	281.26	288.70	288.27	288.08	288.1	288.65	288.82
September 24, 1980	281.01	281.17	288.68	288.47	288.52	288.05	288.63	288.79
October 1, 1980	281.56	281	288.64	288.03	288.57	288.35	288.47	288.43
October 8, 1980	281.32	288.64	288.64	279.48	281.42	288.5	288.30	288.42
October 15, 1980	281.37	288.54	288.54	288.3	279.06	279.78	288.27	288.46
October 22, 1980	281.16	281.62	288.1	279.05	279.58	279.5	288.23	288.16
October 29, 1980	281.77		288.85	288.28	288.08	288.1	281.32	281.2
November 5, 1980	281.02	281.20	288.65	288.13	279.86	288.12	288.06	281.01
November 12, 1980	281.61	281.27	288.46	288.03	279.78	279.87	288.64	288.7
November 19, 1980	281.37	281.36	288.40	279.80	279.61	279.7	288.40	288.61
November 26, 1980	282.37	282.24	281.26	288.55	288.51	288.45	282.15	288.01
December 3, 1980	283.53	282.32	281.14	288.83	288.64	281.15	281.98	282.81
December 10, 1980	282.55	282.45	281.34	281	281.68	281.1	281.77	282
December 17, 1980	282.32	282.54	282.10	282.21	283.00	282.26	281.67	281.70
December 24, 1980	282.25	282.30	282.28	282.28	282.01	282.25	281.52	281.67
December 31, 1980	281.53	282.16	281.64	281.72	282.51	281.65	281.17	281.38
January 7, 1981	281.16	282.06	281.77	281.83	282.41	281.72	281.15	281.27
January 14, 1981	281.27	281.87	281.69	281.83	282.66	281.7	288.86	288.05
January 21, 1981	281	281.45	281.73	281.82	282.61	281.87	288.76	288.74

GPU ENVIRONMENTAL CONTROLS GROUP
WATER LEVEL (MEAN SEA LEVEL)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8
DATE	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL
January 28, 1981	280.72	281.39	281.56	281.83	282.7	281.85	280.57	280.55
February 4, 1981	281.23	281.55	281.84	282.07	282.78	281.75	281.82	280.81
February 11, 1981	281.45	281	282.43	282.36	283.01	282.38	281.27	281.24
February 18, 1981	282.67	282.98	283.87	283.14	283.36	283.16	282.79	282.8
February 25, 1981	284.57	284.75	284.55	284.41	284.86	284.35	284.45	284.57
March 4, 1981	283.59	284.99	285.84	284.94	284.95	284.94	283.7	284.96
March 11, 1981	284.27	284.91	284.84	282.83	284.76	284.68	284.55	284.53
March 18, 1981	283.80	284.86	284.59	284.43	284.36	284.35	284.27	284.29
March 25, 1981	283.58	284.45	284.86	283.98	283.92	283.91	283.81	284.86
April 1, 1981	283.89	283.96	283.44	283.37	283.41	283.3	283.29	283.18
April 8, 1981	283.87	283.46	283.04	282.77	282.86	282.77	282.96	283
April 15, 1981	283.47	283.05	283.3	282.05	283.09	282.73	283.32	283.3
April 22, 1981	283.72	283.63	283.33	283.88	283.05	283.83	283.51	283.58
April 29, 1981	283.5	283.68	283.1	283	282.89	282.69	283.28	283.3
May 6, 1981	283.29	283.41	282.9	282.66	282.72	282.52	282.99	283.13
May 13, 1981	282.94	282.96	282.24	282.35	282.35	282.25	282.55	282.6
May 20, 1981	282.82	282.91	282.51	262.26	282.28	282.23	282.59	282.61
May 27, 1981	282.58	282.62	281.99	281.98	281.86	281.85	282.3	281.32
June 3, 1981	282.52	282.49	282.84	281.81	281.51	281.57	281.95	282.15
June 10, 1981	282.37	282.38	281.83	281.51	281.25	280.67	281.67	281.76
June 17, 1981	282.47	282.46	281.86	280.81	281.21	281.25	281.84	281.96
June 24, 1981	283.35	283.89	282.9	282.42	282.18	282.12	283.27	283.51

GPU ENVIRONMENTAL CONTROLS GROUP
WATER LEVEL (MEAN SEA LEVEL)

DATE OF SAMPLE	D.V. 9 WATER LEVEL	D.V. 10 WATER LEVEL	D.V. 13B WATER LEVEL	D.V. 14 WATER LEVEL	D.V. 15 WATER LEVEL	D.V. 16 WATER LEVEL	D.V. 17 WATER LEVEL
May 9, 1980	285.11	285.12	284.36	284.71	275.06	287.64	284.89
May 12, 1980	284.02	284.82	284.03	284.39	275.21	288.26	284.73
May 13, 1980	286.68	285.10	284.31	284.62	275.28	287.00	285.54
May 14, 1980	285.40	285.05	284.43	284.75	275.31	288.40	284.02
May 16, 1980	285.37	284.85	284.37	284.72	275.33	287.00	284.87
May 19, 1980	285.08	284.81	284.22	284.47	275.22	288.20	284.72
May 21, 1980	287.61	285.00	284.15	284.44	275.88	287.00	285.51
May 22, 1980	285.65	285.01	284.35	284.56	275.38	288.61	285.03
May 23, 1980	285.47	284.04	284.33	284.39	275.24	288.30	284.02
May 30, 1980	284.43	284.51	283.88	284.17	274.87	288.11	284.48
May 31, 1980	284.38	284.45	283.8	284.14	273.82	287.26	284.27
June 2, 1980	284.4	285.86	283.45	284.03	273.32	288.75	284.31
June 4, 1980	284.20	284.2	283.53	283.87	272.98	286.41	283.91
June 6, 1980	284.18	284.13	283.51	283.78	272.56	288.16	284.05
June 7, 1980	284.88	284.86	283.46	283.73	272.36	288.4	283.98
June 10, 1980	285.48	283.90	283.36	283.65	272.06	290.21	283.88
June 13, 1980	284.3	283.71	282.66	283.40	272.80	289.54	283.61
June 17, 1980	285.30	283.70	283.42	283.76	271.77	286.02	283.9
June 20, 1980	284.74	283.05	283.41	283.76	271.5	289.69	283.67
June 26, 1980	283.43	283.39	283.23	283.7		289.70	283.32
June 27, 1980	283.21	283.34	283.14	283.57		289.80	283.27
July 7, 1980	282.5	282.69	282.21	282.62	278.43	288.80	282.81
July 18, 1980	286.20	282.27	281.49		278	289.80	282.41
July 25, 1980	283.85	282.91	282.8	282.97	278.76	290.80	282.76
July 30, 1980	282.93	283.87	282.30	282.72	278.38	289.23	282.88

C/U ENVIRONMENTAL CONTROLS GROUP
 WATER LEVEL (MEAN SEA LEVEL)

DATE	O. V. 8	O. V. 10	O. V. 13B	O. V. 14	O. V. 15	O. V. 16	O. V. 17
DATE	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL
August 6, 1980	283.42	282.82	282.83	282.17	273.51	209.80	293.84
August 13, 1980	282.89		282.84	282.71		201.24	292.87
August 20, 1980	282.52	282.55	282.83	282.28		208.87	282.56
August 27, 1980	281.4	281.5	281.10	281.64	278.26	280.91	281.20
September 3, 1980	281.57	281.72	288.76	281.17	278.1	280.53	281.56
September 10, 1980	281.37	281.48	289.5	281.24	280.73	208.24	281.43
September 17, 1980	281.82	281.32	288.55	288.72	278.15	200.41	
September 24, 1980	281.17	281.18	288.46	288.78		280.04	281.20
October 1, 1980	280.74	280.92	270.20	288.77	268.83	280.54	280.61
October 8, 1980	280.65	280.78	288.11	288.84		280.84	280.6
October 15, 1980	280.75	280.87	288.01	288.72	268.83	288.00	280.76
October 22, 1980	280.68	280.63	278.81	288.37		287.88	280.56
October 29, 1980	281.17	281.3	288.74	281.48		288.07	281.2
November 5, 1980	281.28	281.32	288.81	281.25		280.84	281.31
November 12, 1980	281.18	281.24	288.27	288.07		288.4	281.13
November 19, 1980	280.94	281.39	288.44	281.17		288.56	281.28
November 26, 1980	282.34	282.45	281.56	281.92		280.37	282.25
December 3, 1980	282.52	282.42	281.61	281.93		288.70	282.43
December 10, 1980	282.47	282.59	281.43	281.90			282.49
December 17, 1980	282.62	282.63	281.61	281.69			282.67
December 24, 1980	282.37	282.37	281.21	281.76			282.46
December 31, 1980	282.17	282.20	281.81	281.47		288.30	282.87
January 7, 1981	282.12	282.16	288.72	281.27		286.00	281.66
January 14, 1981	281.77	281.73	288.51	281.81		286.77	281.47
January 21, 1981	281.54	281.53	288.3	288.87			281.47

GPU ENVIRONMENTAL CONTROLS GROUP
WATER LEVEL (MEAN SEA LEVEL)

DATE	O.V. 9	O.V. 18	O.V. 138	O.V. 14	O.V. 15	O.V. 16	O.V. 17
DATE	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL	WATER LEVEL
January 28, 1981	281.44	281.43	280.12	280.7		286.4	281.38
February 4, 1981	281.57	281.56	280.12	280.94	272.07	287.80	281.58
February 11, 1981	282.24	282.07	280.80	281.24		287.30	281.71
February 18, 1981	283.83	283.07	282.30	282.67		287.70	283.81
February 25, 1981	284.75	284.82	284.86	284.44	288.88		294.84
March 4, 1981	284.01	285.07	284.41	284.82	277.87	288.40	285.82
March 11, 1981	285.02	284.05	284.86	284.53	274.98	288.50	284.93
March 18, 1981	284.60	284.73	283.70	284.22	274.38	288.83	284.60
March 25, 1981	284.27	284.44	283.30	282.8	272.38	288.28	284.38
April 1, 1981	283.82	283.93	282.93	283.34		288.1	283.8
April 8, 1981	283.52	283.6	282.66	282.07		288.21	283.55
April 15, 1981	283.03	283.8	283	283.14	275.15	288.83	283.01
April 22, 1981	283.81	283.81	283.15	283.32	275.32	288.63	283.82
April 29, 1981	283.57	283.81	282.02	283.18	274.63	288.86	283.71
May 6, 1981	283.48	283.53	282.47	282.07	275.20	288.72	283.45
May 13, 1981	282.5	283.89	282.81	282.41		288.34	282.8
May 20, 1981	282.57	283.25	282.24	282.54	275.13	288.84	282.96
May 27, 1981	280.68	283.17	281.89	282.25		289.45	282.60
June 3, 1981		282.67	281.61	281.91	273.2	289.83	282.61
June 10, 1981		282.46	281.33	281.68	272.53	289.88	282.4
June 17, 1981		283	281.51	281.72		289.73	282.4
June 24, 1981		283.75	283.13	283.37		289.48	283.76

GPU ENVIRONMENTAL CONTROLS GROUP
 CESIUM-137 CONCENTRATION (PCI/L)

DATE	M.U. 1	M.U. 2	M.U. 3	M.U. 4	M.U. 5	M.U. 6	M.U. 7	M.U. 8
February 25, 1980	X	X	X	X	X	X	X	X
March 28, 1980	X	X	X	X	X	X	X	X
April 2, 1980	X	X	X	X	X	X	X	X
April 2, 1980	X	X	X	X	X	X	X	X
April 9, 1980	X	X	X	X	X	X	X	X
April 11, 1980	X	X	X	X	X	X	X	X
April 12, 1980	X	X	X	X	X	X	X	X
April 13, 1980	X	X	X	X	X	X	X	X
April 14, 1980	X	X	X	X	X	X	X	X
April 15, 1980	X	X	X	X	X	X	X	X
April 16, 1980	X	X	X	X	X	X	X	X
April 17, 1980	X	X	X	X	X	X	X	X
April 18, 1980	X	X	X	X	X	X	X	X
April 19, 1980	X	X	X	X	X	X	X	X
May 2, 1980	X	X	X	X	X	X	X	X
May 5, 1980	X	X	X	X	X	X	X	X
May 16, 1980	X	X	X	X	X	X	X	X
May 23, 1980	X	X	X	X	X	X	X	X
May 30, 1980	X	X	X	X	X	X	X	X
June 6, 1980	X	X	X	X	X	X	X	X
June 13, 1980	X	X	X	X	X	X	X	X
June 20, 1980	X	X	X	X	X	X	X	X
June 27, 1980	X	X	X	X	X	X	X	X
July 7, 1980	X	X	X	X	X	X	X	X
July 18, 1980	X	X	X	X	X	X	X	X

12.2 7

9.19 4.87

9.52 4.49

DATE OF SAMPLE	M.U. 1 +/- CS-137 SEEN	M.U. 2 +/- CS-137 SEEN	M.U. 3 +/- CS-137 SEEN	M.U. 4 +/- CS-137 SEEN	M.U. 5 +/- CS-137 SEEN	M.U. 6 +/- CS-137 SEEN	M.U. 7 +/- CS-137 SEEN	M.U. 8 +/- CS-137 SEEN
July 25, 1980	X	X	X	X	X	X	X	X
July 30, 1980	X	X	X	X	X	X	X	X
August 6, 1980	X	X	X	X	X	X	X	X
August 13, 1980	X	X	X	X	X	X	X	X
August 20, 1980	X	X	X	X	X	X	X	X
August 27, 1980	X	X	X	X	X	X	X	X
September 3, 1980	X	X	X	X	X	X	X	X
September 10, 1980	X	X	X	X	X	X	X	X
September 17, 1980	X	X	X	X	X	X	X	X
September 24, 1980	X	X	X	X	X	X	X	X
October 1, 1980	X	X	X	X	X	X	X	X
October 8, 1980	X	X	X	X	X	X	X	X
October 15, 1980	X	X	X	X	X	X	X	X
October 22, 1980	X	X	X	X	X	X	X	X
October 29, 1980	X	X	X	X	X	X	X	X
November 5, 1980	X	X	X	X	X	X	X	X
November 12, 1980	X	X	X	X	X	X	X	X
November 19, 1980	X	X	X	X	X	X	X	X
November 26, 1980	X	X	X	X	X	X	X	X
December 3, 1980	X	X	X	X	X	X	X	X
December 10, 1980	X	X	X	X	X	X	X	X
December 17, 1980	X	X	X	X	X	X	X	X
December 24, 1980	X	X	X	X	X	X	X	X
December 31, 1980	X	X	X	X	X	X	X	X
January 7, 1981	X	X	X	X	X	X	X	X

GPL ENVIRONMENTAL CONTROLS GROUP
CESIUM-137 CONCENTRATION (PCI/L)

13.4 6.3
34.9 6.3
14.2 2.8
14.2 8.8
94.7 9.5
5.9 2.36
30.2 4.2
88.1 8.8
24.1 5.9
18.9 5.0

REPORT NO. 22 DATE, July 2, 1981

GPU ENVIRONMENTAL CONTROLS GROUP
CESIUM-137 CONCENTRATION (PCI/L)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8
OF SAMPLE	CS-137 +/-	CS-137 +/-	CS-137 +/-	CS-137 +/-	CS-137 +/-	CS-137 +/-	CS-137 +/-	CS-137 +/-
January 14, 1981		81.4	7.8					
January 21, 1981		13.7	4.5					
January 28, 1981		7.7	4.36					
February 4, 1981		12.7	3.5					
February 11, 1981		37						
February 18, 1981		180	18.0					
February 25, 1981		56.2	5.6					
March 4, 1981		<						
March 11, 1981		19.5	4.5					
March 18, 1981		NO SAMPLE						
March 25, 1981		<						
April 1, 1981		<						
April 8, 1981		<						
April 15, 1981		<						
April 22, 1981		<						
April 29, 1981		7.68	4.45					
May 6, 1981		<						
May 13, 1981		<						
May 20, 1981		<						
May 28, 1981		12.87	4.11					
June 3, 1981		22.4	4.3					
June 10, 1981		<						
June 17, 1981		<						
June 24, 1981		7.58	3.73					

CPU ENVIRONMENTAL CONTROLS GROUP		CESIUM-134 CONCENTRATION (PC/L)	
DATE	N.U. 1	N.U. 2	N.U. 3
OF SAMPLE	CS-134	CS-134	CS-134
February 25, 1980			
March 28, 1980			
April 2, 1980			
April 8, 1980			
April 9, 1980			
April 11, 1980			
April 12, 1980			
April 13, 1980			
April 14, 1980			
April 15, 1980			
April 16, 1980			
April 17, 1980			
April 18, 1980			
April 19, 1980			
May 2, 1980			
May 8, 1980			
May 16, 1980			
May 23, 1980			
May 30, 1980			
June 6, 1980			
June 13, 1980			
June 20, 1980			
June 27, 1980			
July 7, 1980			
July 13, 1980			

TABLE 6, PAGE 1

QPJ ENVIRONMENTAL CONTROLS GROUP
CESIUM-134 CONCENTRATION (PCI/L)

DATE	M.U. 1	M.U. 2	M.U. 3	M.U. 4	M.U. 5	M.U. 6	M.U. 7	M.U. 8
July 25, 1980	X	X	X	X	X	X	X	X
July 30, 1980	X	X	X	X	X	X	X	X
August 6, 1980	X	X	X	X	X	X	X	X
August 12, 1980	X	X	X	X	X	X	X	X
August 20, 1980	X	X	X	X	X	X	X	X
August 27, 1980	X	X	X	X	X	X	X	X
September 3, 1980	X	X	X	X	X	X	X	X
September 10, 1980	X	X	X	X	X	X	X	X
September 17, 1980	X	X	X	X	X	X	X	X
September 24, 1980	X	X	X	X	X	X	X	X
October 1, 1980	X	12.8	X	X	X	X	X	X
October 8, 1980	X	X	X	X	X	X	X	X
October 15, 1980	X	X	X	X	X	X	X	X
October 22, 1980	X	X	X	X	X	X	X	X
October 29, 1980	X	X	X	X	X	X	X	X
November 5, 1980	X	X	X	X	X	X	X	X
November 12, 1980	X	33	X	X	X	X	X	X
November 19, 1980	X	X	X	X	X	X	X	X
November 26, 1980	X	X	X	X	X	X	X	X
December 3, 1980	X	X	X	X	X	X	X	X
December 10, 1980	X	18.0	X	X	X	X	X	X
December 17, 1980	X	26	X	X	X	X	X	X
December 24, 1980	X	10.8	X	X	X	X	X	X
December 31, 1980	X	X	X	X	X	X	X	X
January 7, 1981	X	9.68	X	X	X	X	X	X

TABLE 6, PAGE 2

REPORT NO. 22

DATE: July 2, 1981

GPU ENVIRONMENTAL CONTROLS GROUP
 CESIUM-134 CONCENTRATION (PCI/L)

DATE	M.V. 1	M.V. 2	M.V. 3	M.V. 4	M.V. 5	M.V. 6	M.V. 7	M.V. 8
OF SAMPLE	CS-134 +/-	CS-134 +/-	CS-134 +/-	CS-134 +/-	CS-134 +/-	CS-134 +/-	CS-134 +/-	CS-134 +/-
January 14, 1981		36.6 6						
January 21, 1981		7.71 3.62						
January 28, 1981		<						
February 4, 1981		6.2 3.57						
February 11, 1981		134 13						
February 19, 1981		75.0 7.6						
February 25, 1981		21.6 4.1						
March 4, 1981		<						
March 11, 1981		<						
March 18, 1981		NO SAMPLE						
March 25, 1981		<						
April 1, 1981		<						
April 8, 1981		<						
April 15, 1981		<						
April 22, 1981		<						
April 29, 1981		<						
May 6, 1981		<						
May 13, 1981		<						
May 20, 1981		<						
May 28, 1981		<						
June 3, 1981		<						
June 10, 1981		<						
June 17, 1981		<						
June 24, 1981		<						

TRITIUM RESULTS FROM EAST DIKE CATCH BASIN

<u>Date (1980)</u>	<u>Concentration (pCi/l)</u>
December 24	910±140
December 31	310±90
<u>Date (1981)</u>	
January 7	220±80
January 14	240±80
January 21	220±80
January 28	320±90
February 4	650±120
February 11	200±80
February 18	150±70
February 25	100±70
March 4	230±80
March 11	170±70
March 18	800±90
March 25	1290±100
April 1	1090±110
April 8	220±80
April 15	130±80
April 22	2560±380
April 29	No Sample
May 6	420±100

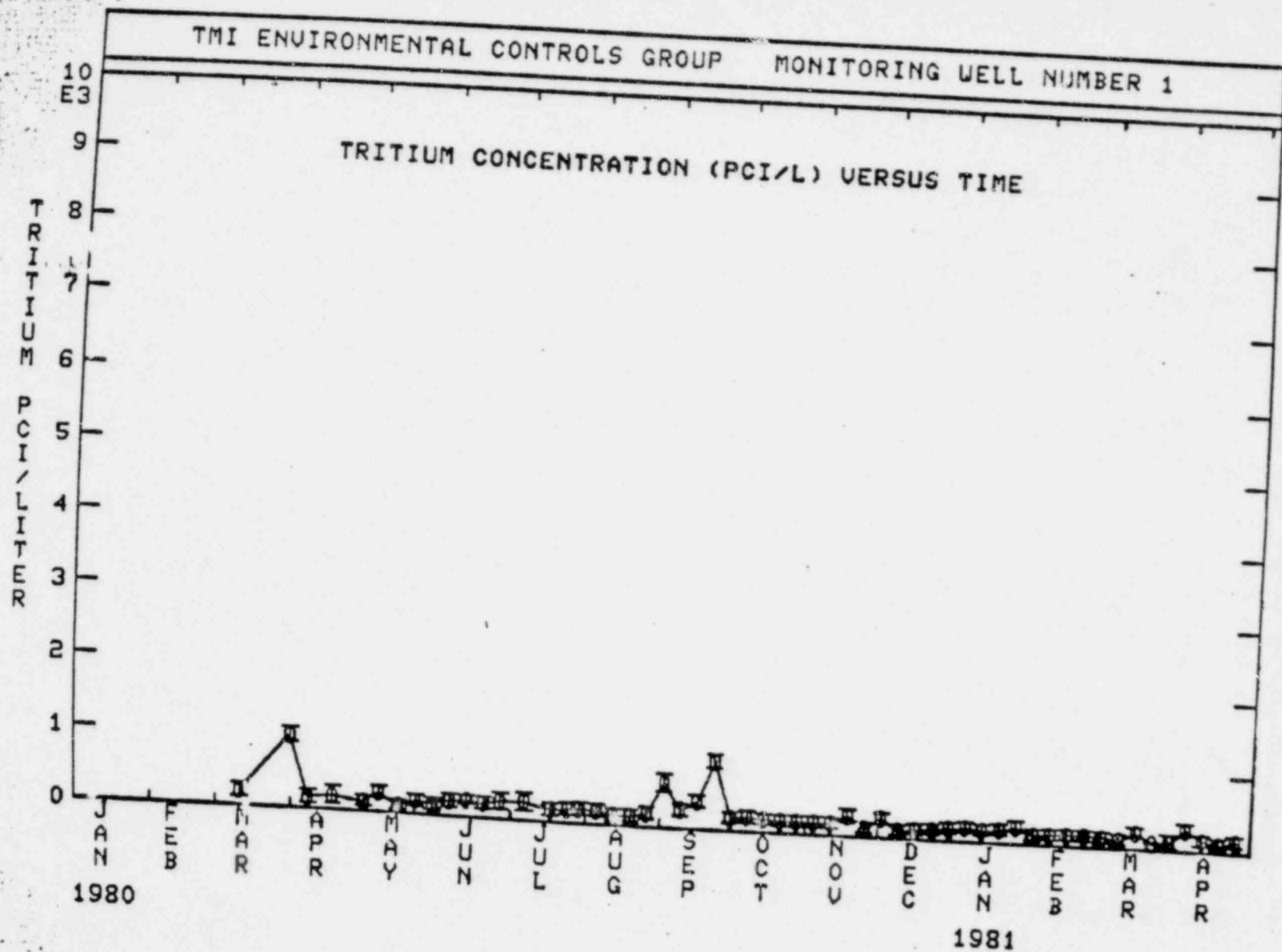


FIGURE 1, PAGE 1

TMI ENVIRONMENTAL CONTROLS GROUP MONITORING WELL NUMBER 2

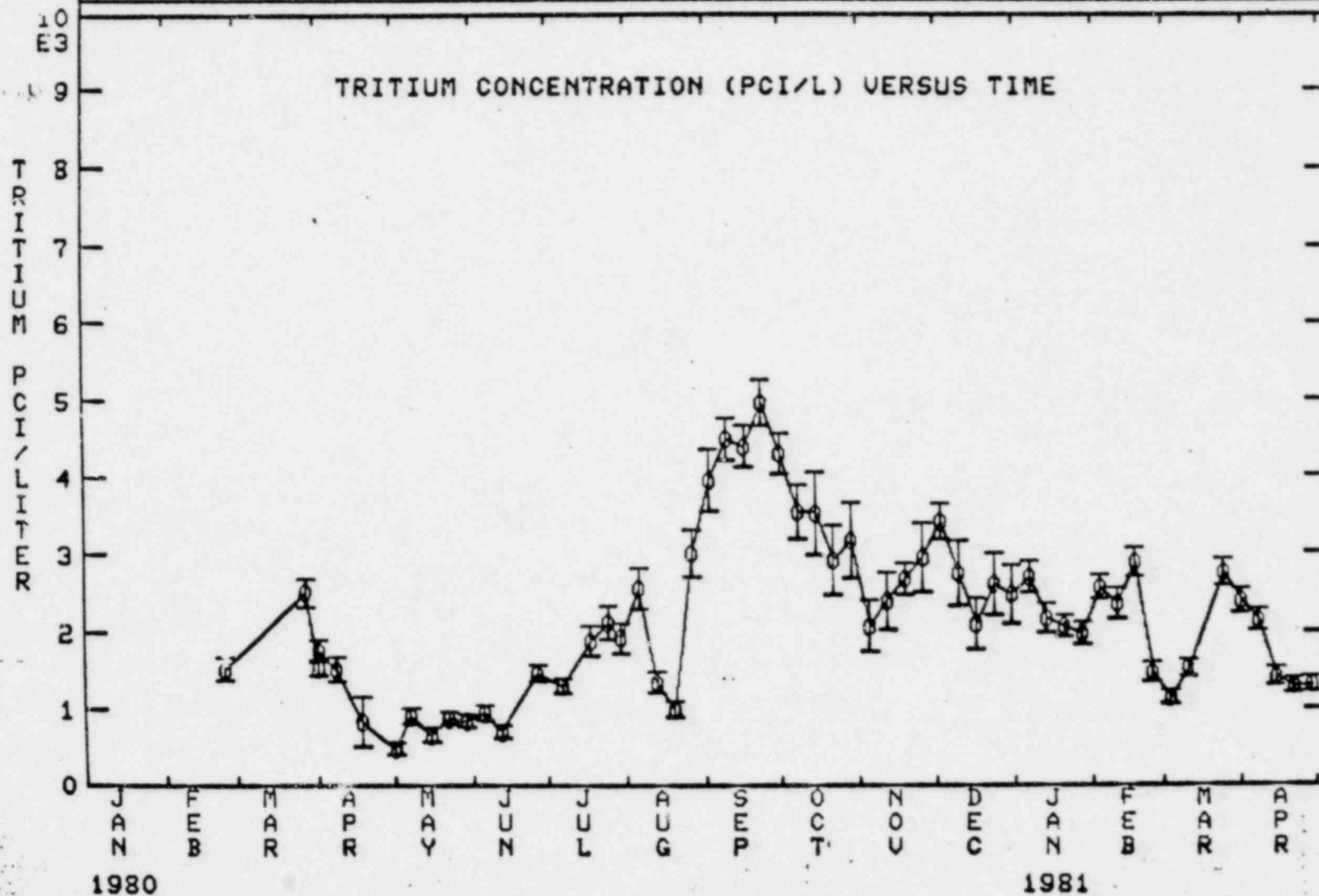


FIGURE 1, PAGE 2

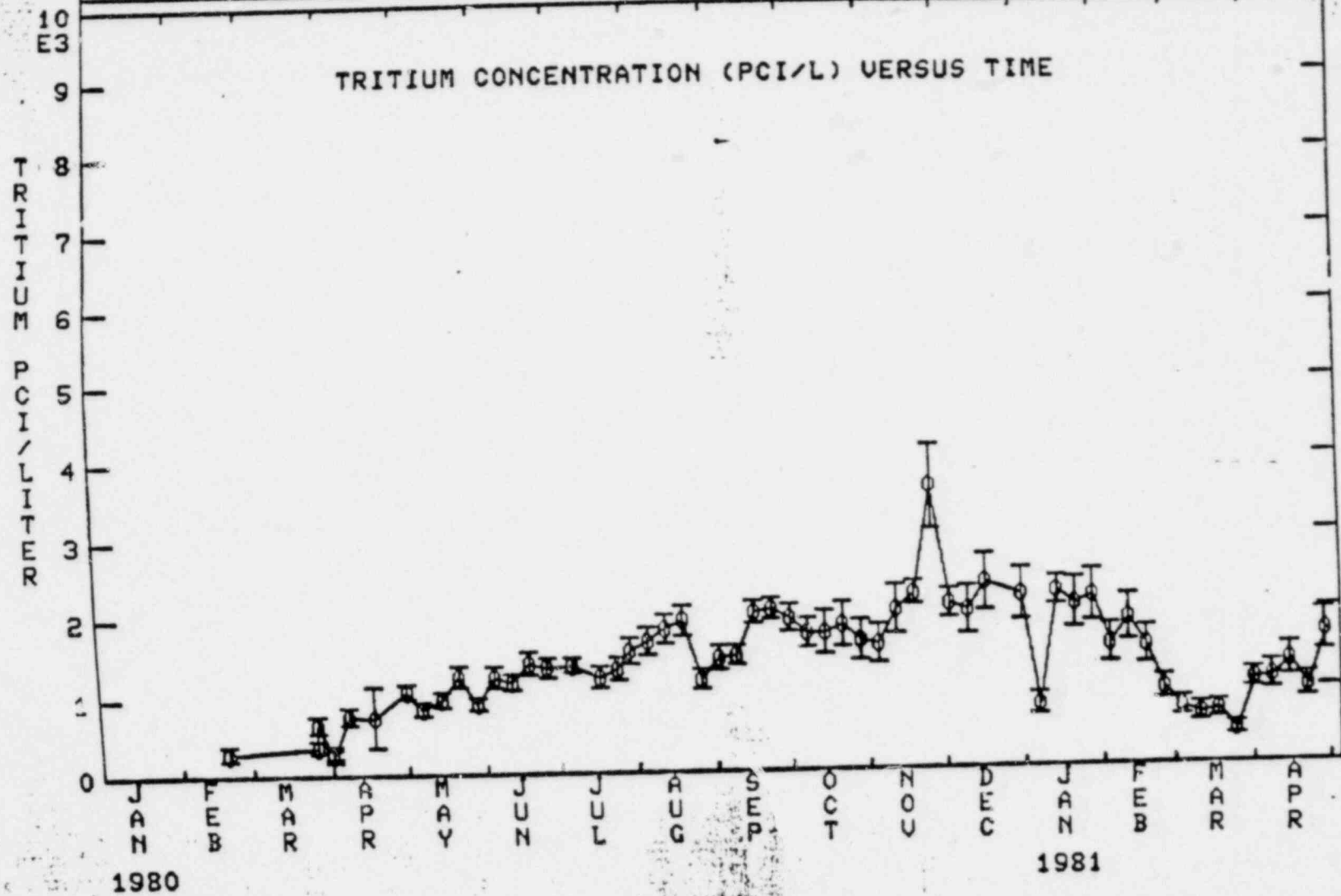


FIGURE 1, PAGE 3

TMI ENVIRONMENTAL CONTROLS GROUP MONITORING WELL NUMBER 4

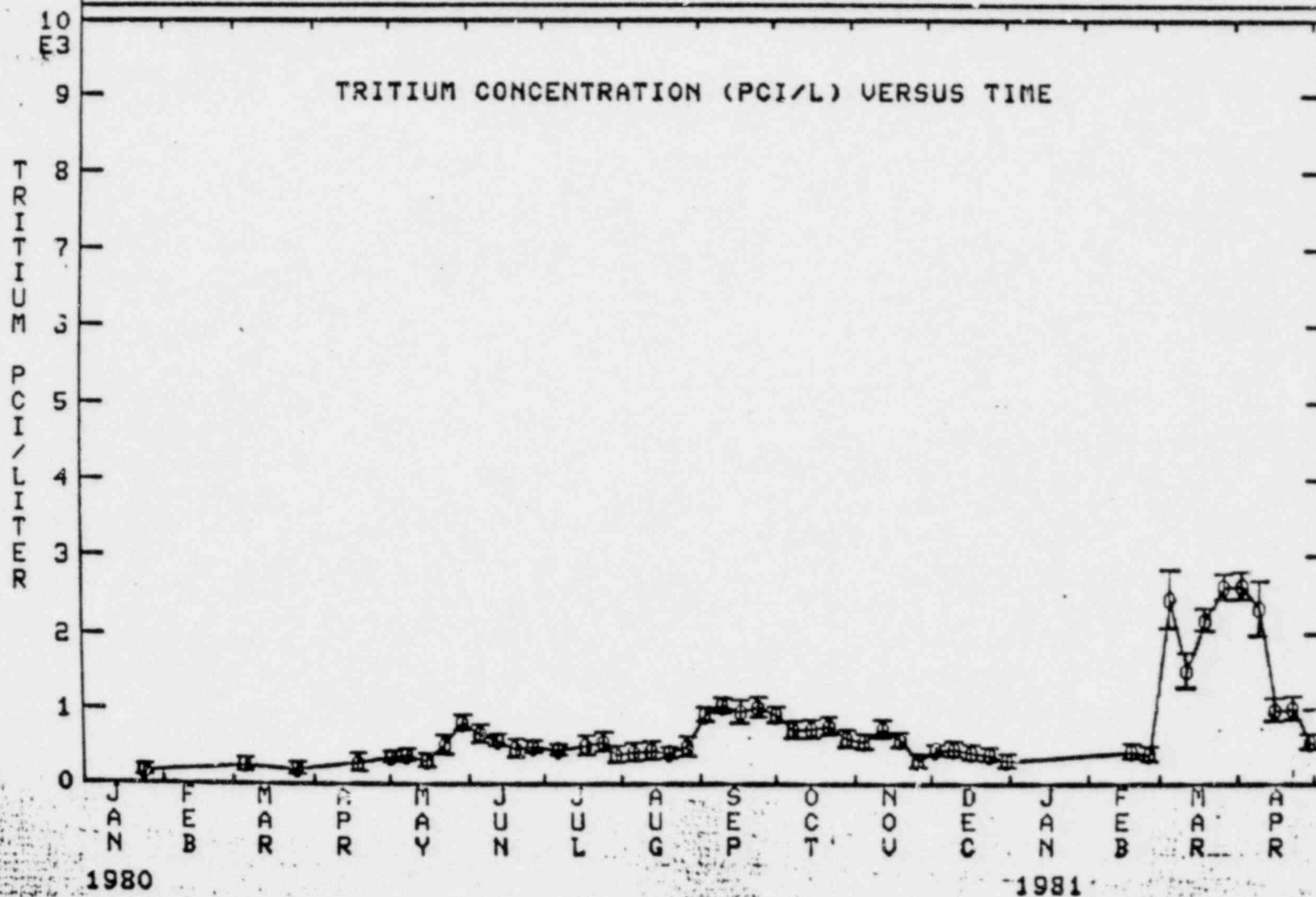
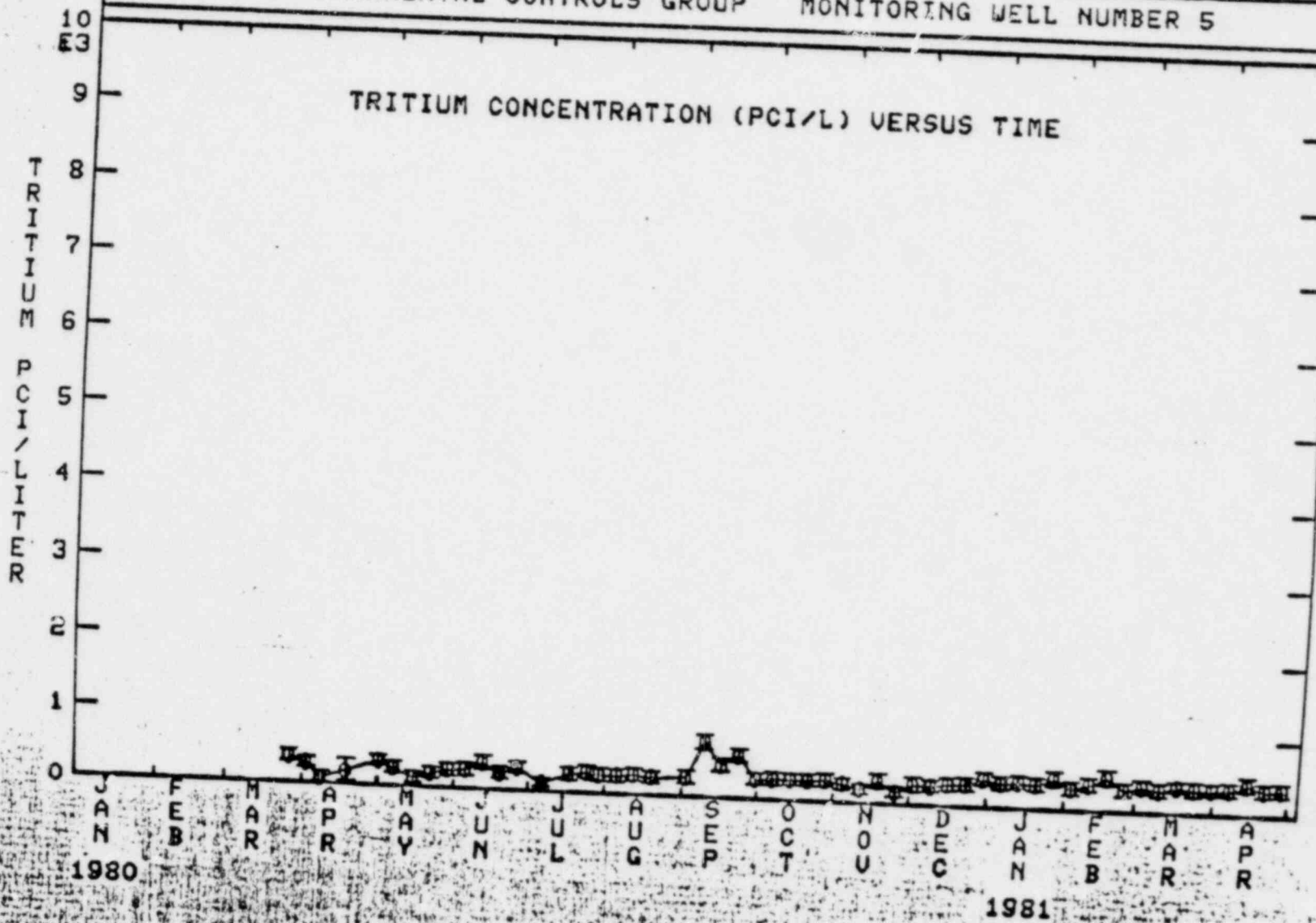


FIGURE 1, PAGE 4

TMI ENVIRONMENTAL CONTROLS GROUP MONITORING WELL NUMBER 5



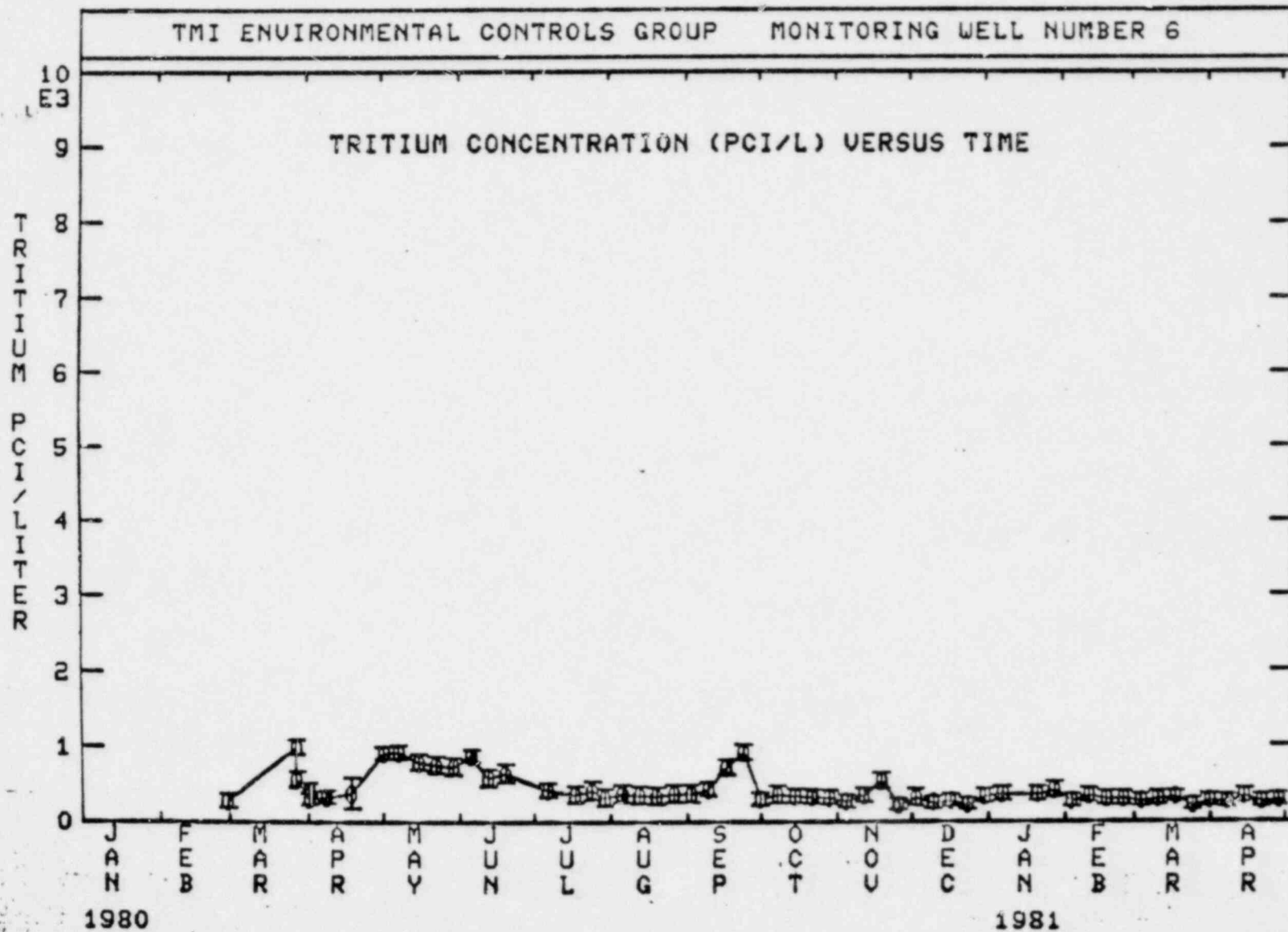


FIGURE 1, PAGE 6

TMI ENVIRONMENTAL CONTROLS GROUP MONITORING WELL NUMBER 7

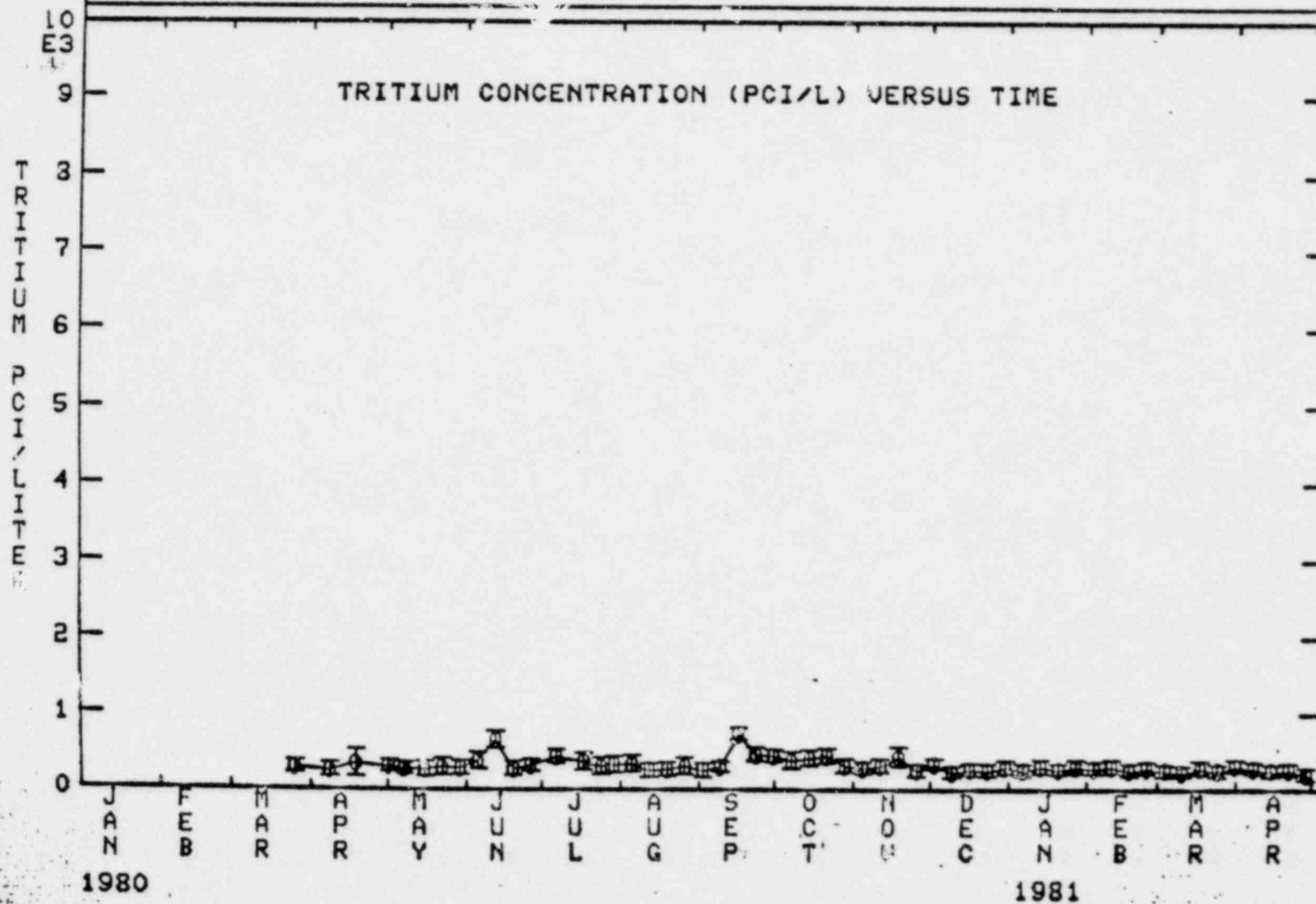


FIGURE 1, PAGE 7

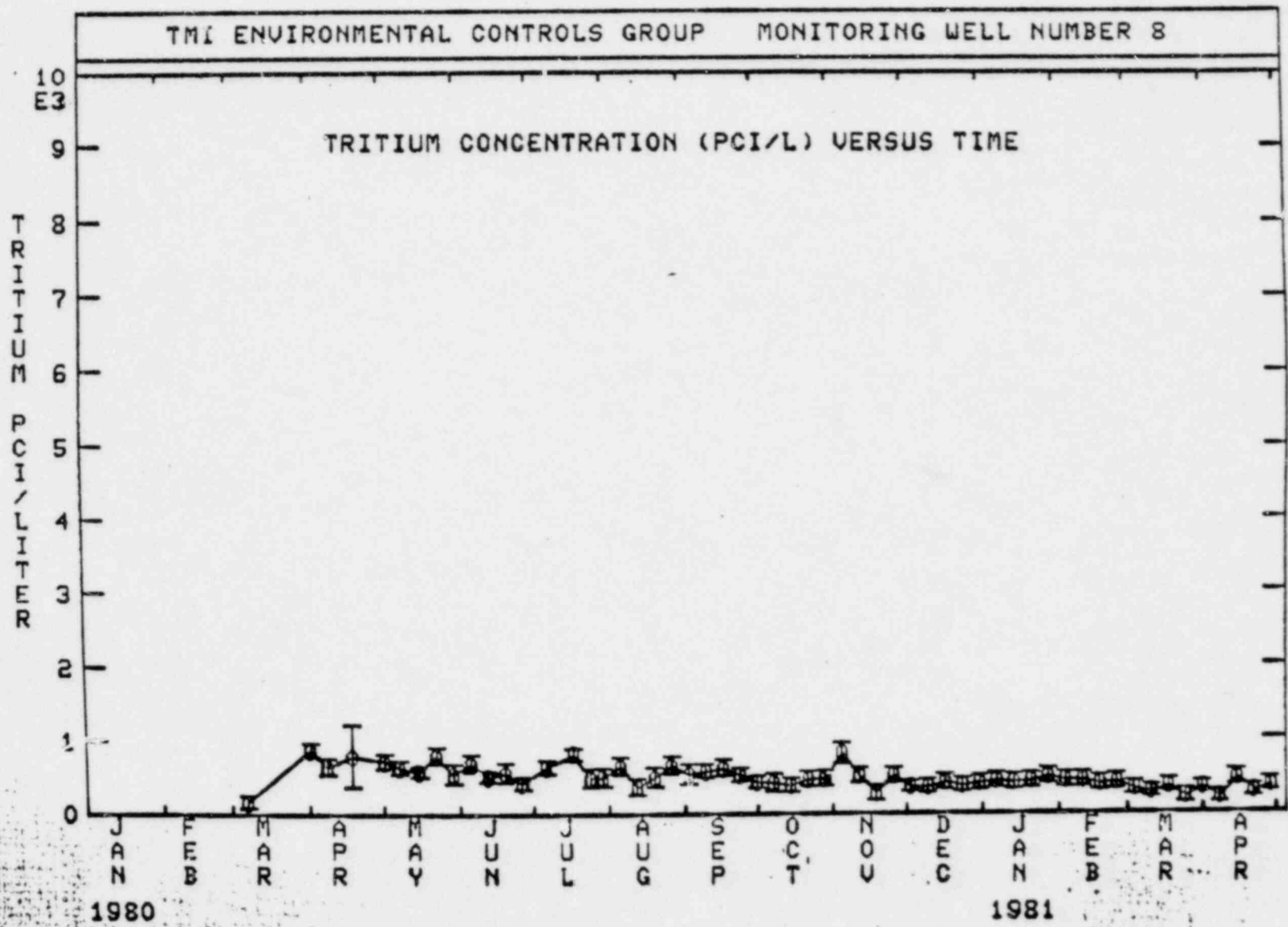


FIGURE 1, PAGE 8

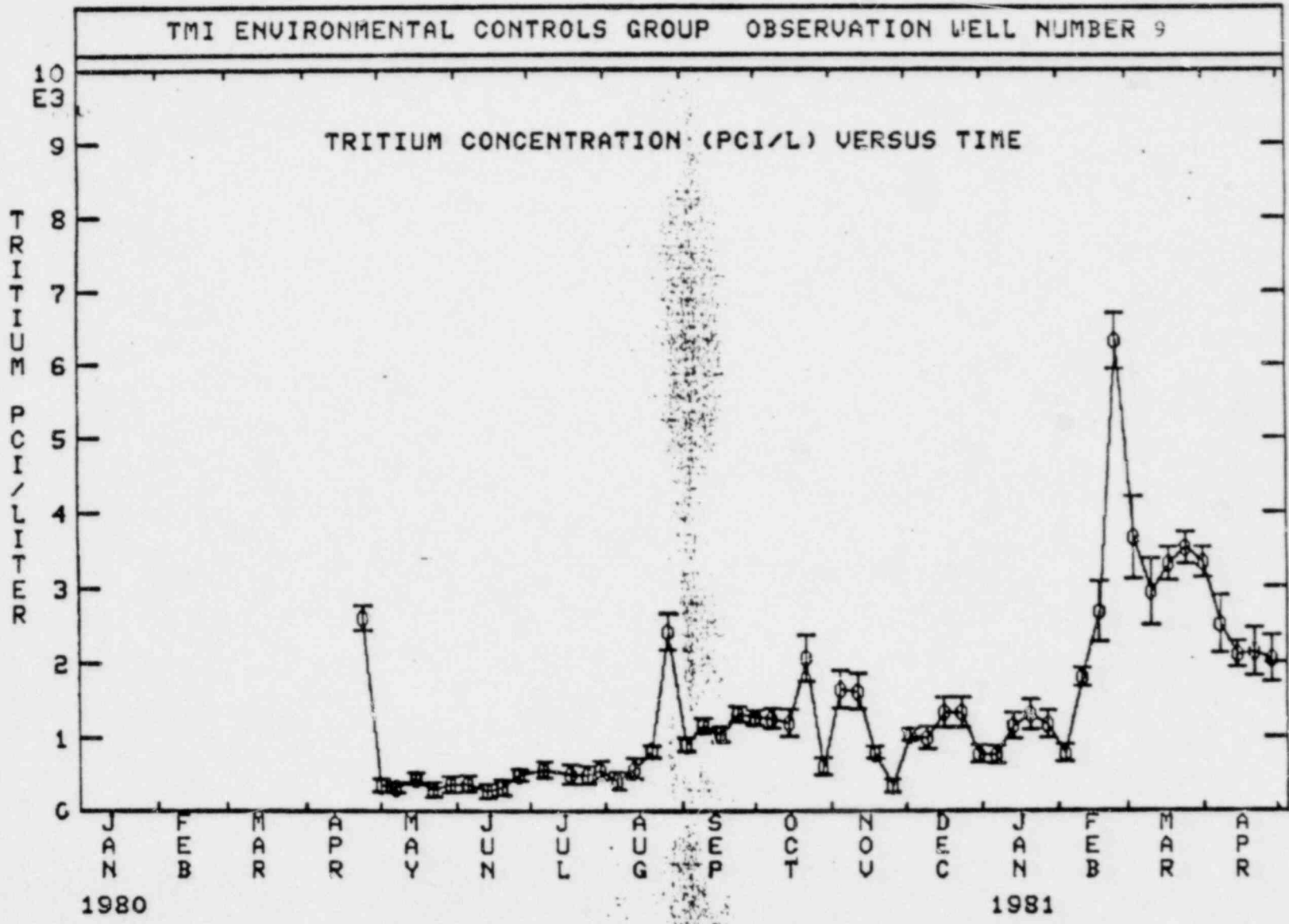
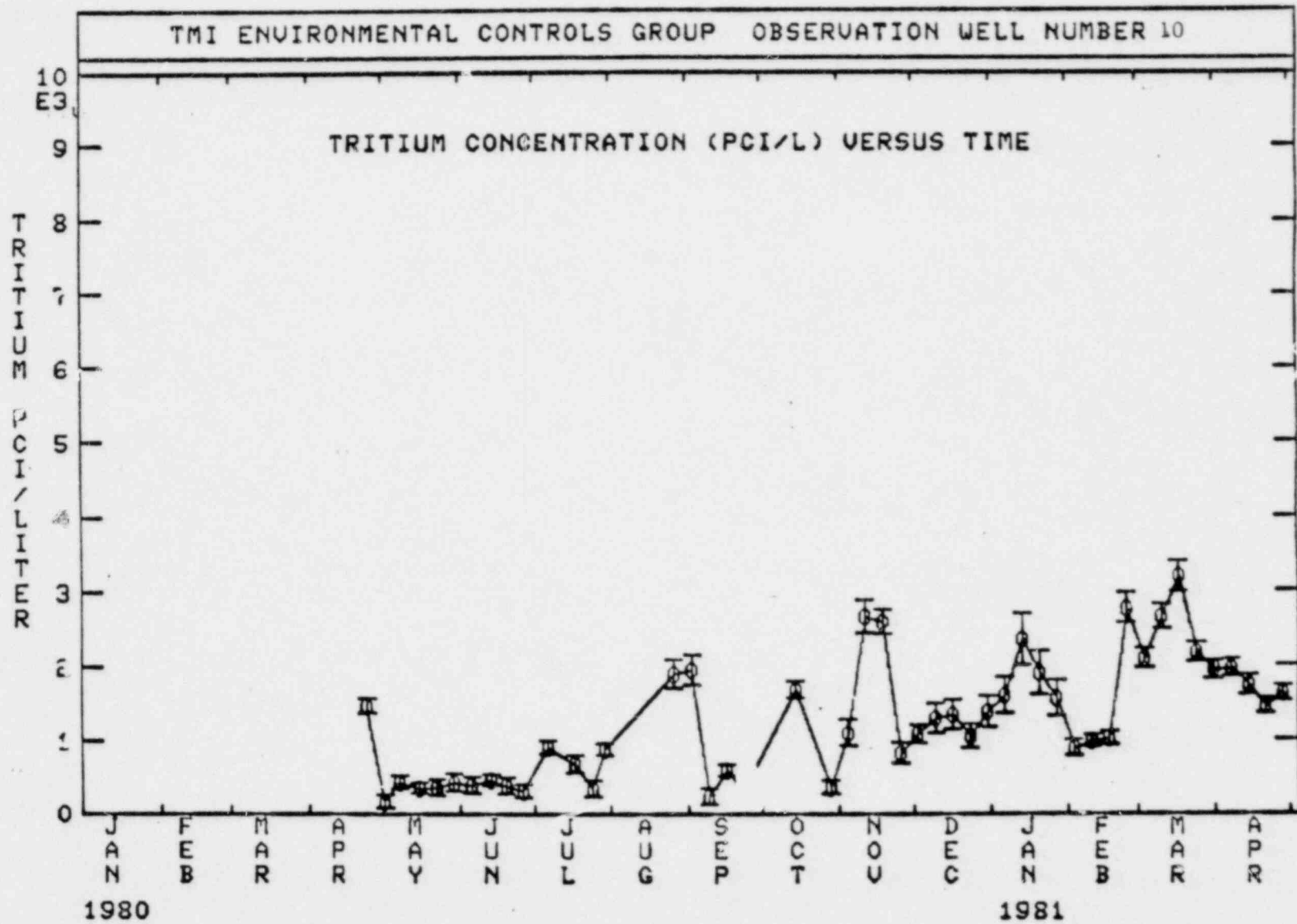


FIGURE 1, PAGE 9



* FIGURE 1, PAGE 10

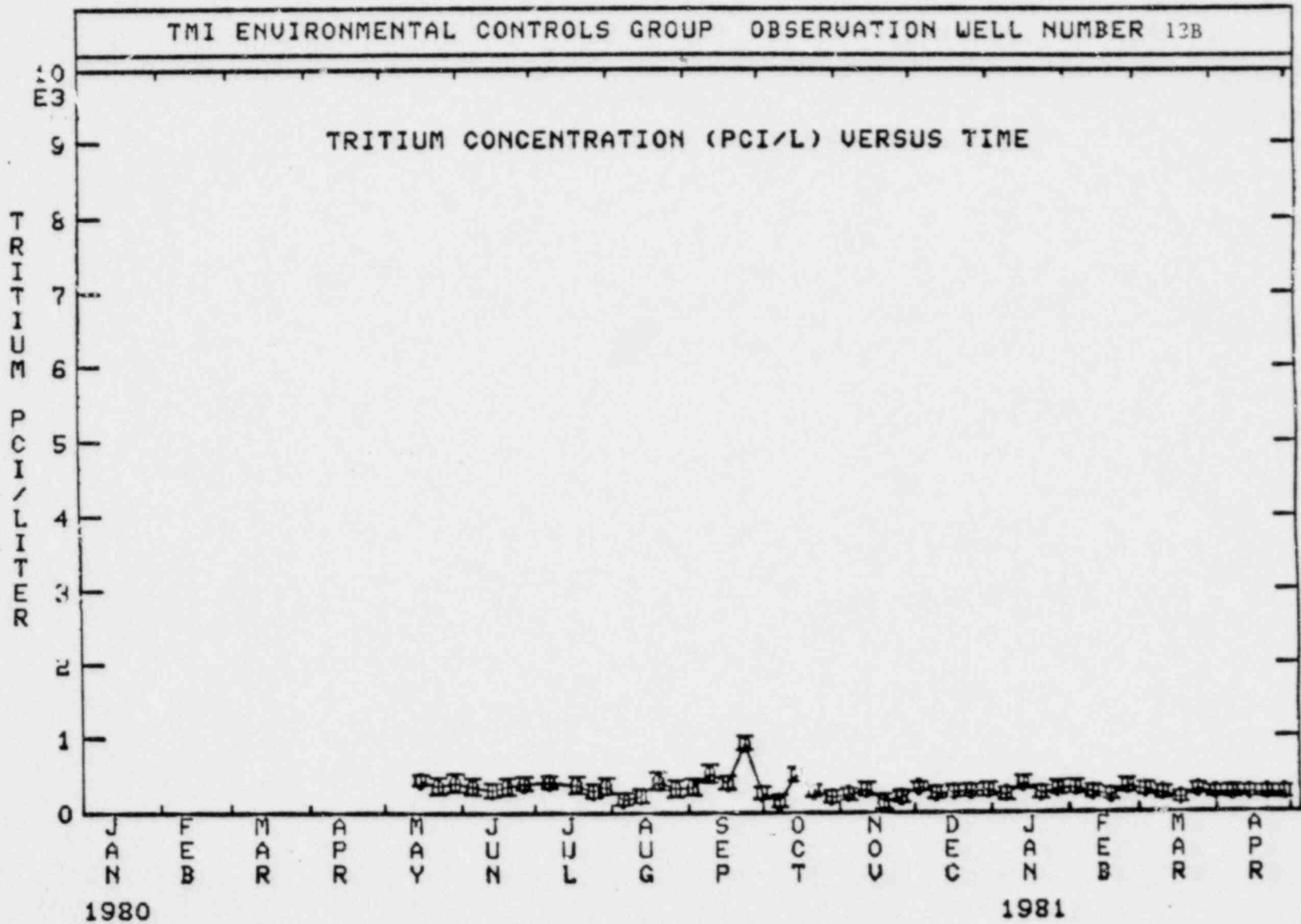


FIGURE 1, PAGE 11

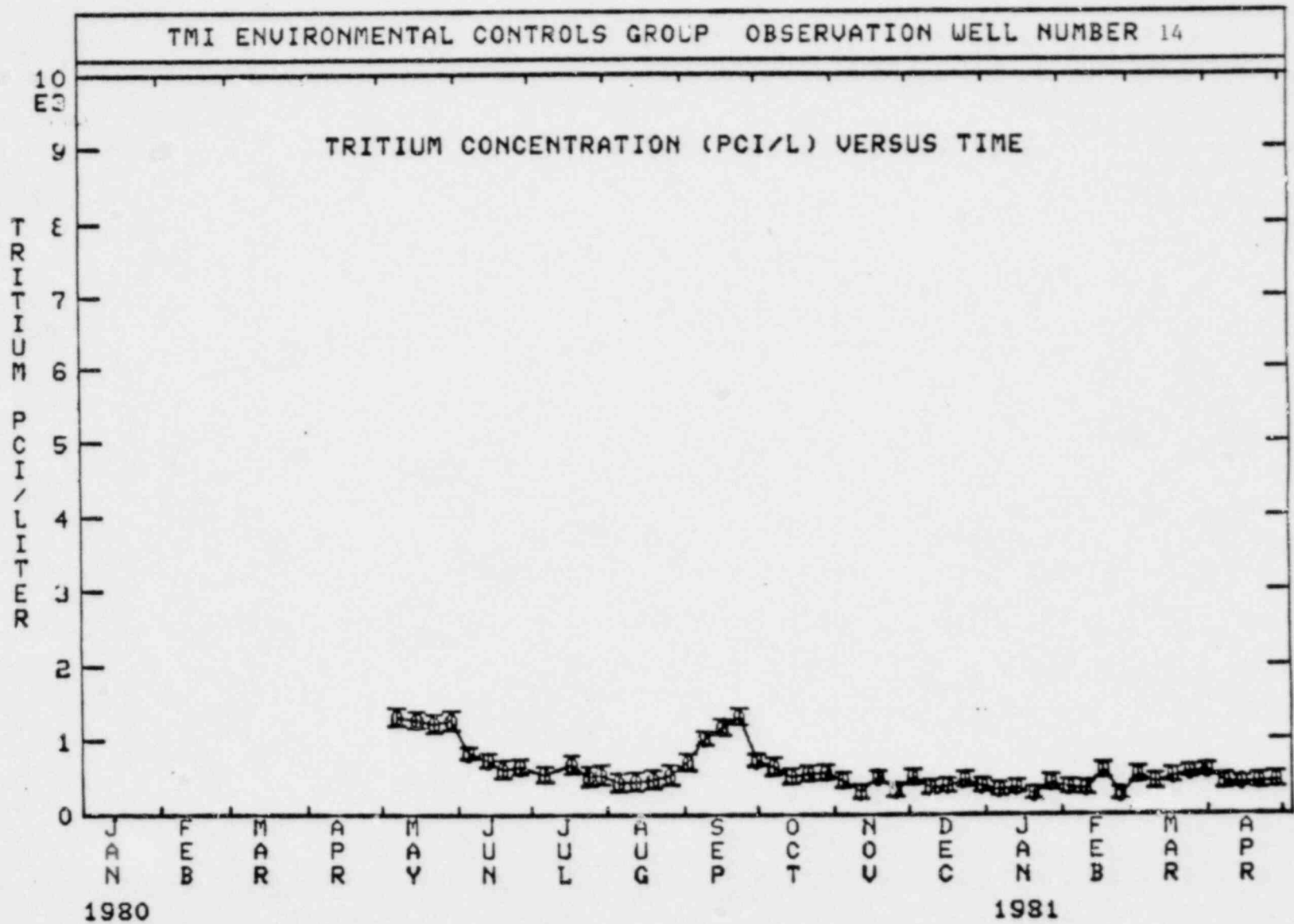


FIGURE 1, PAGE 12

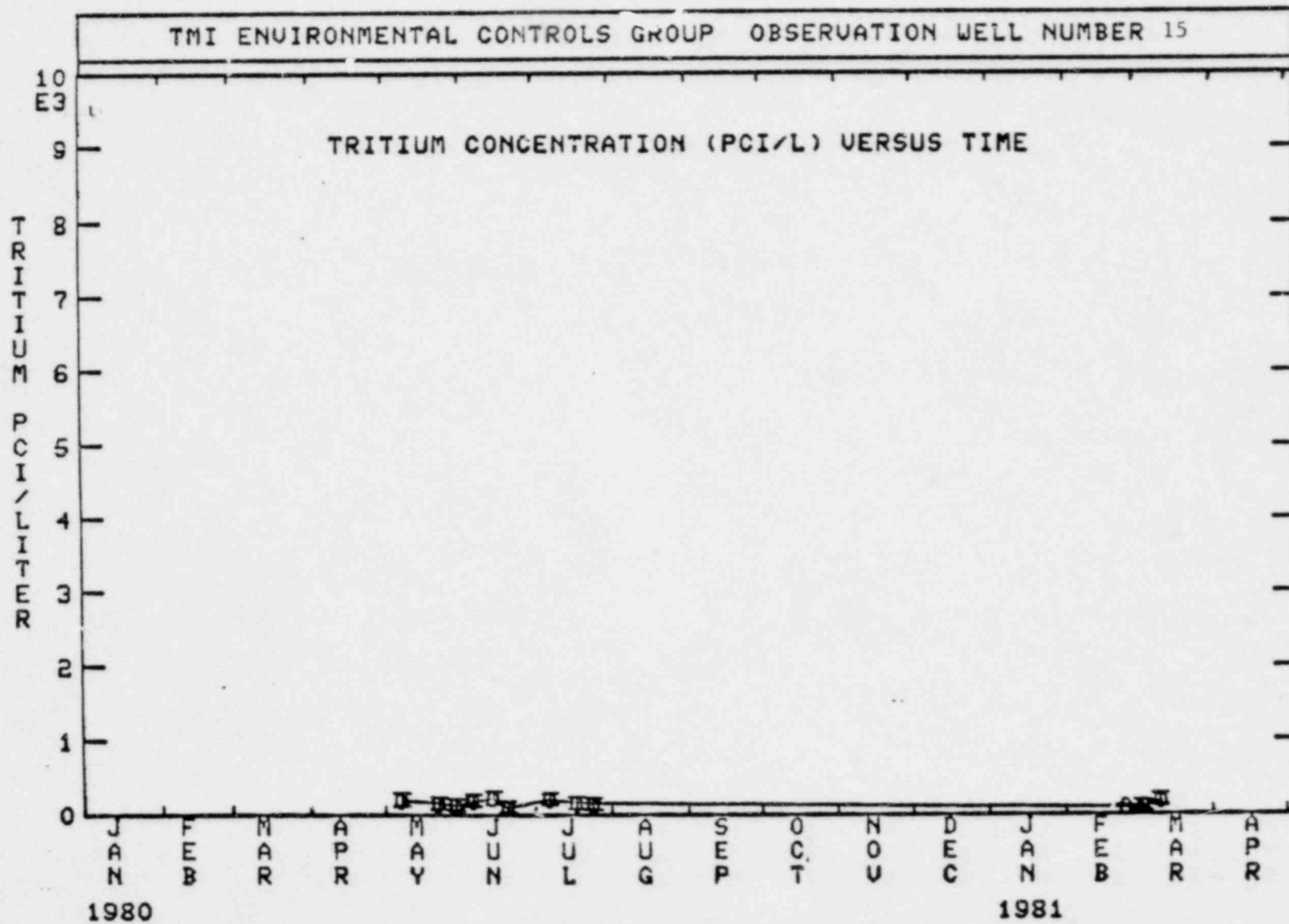


FIGURE 1, PAGE 13

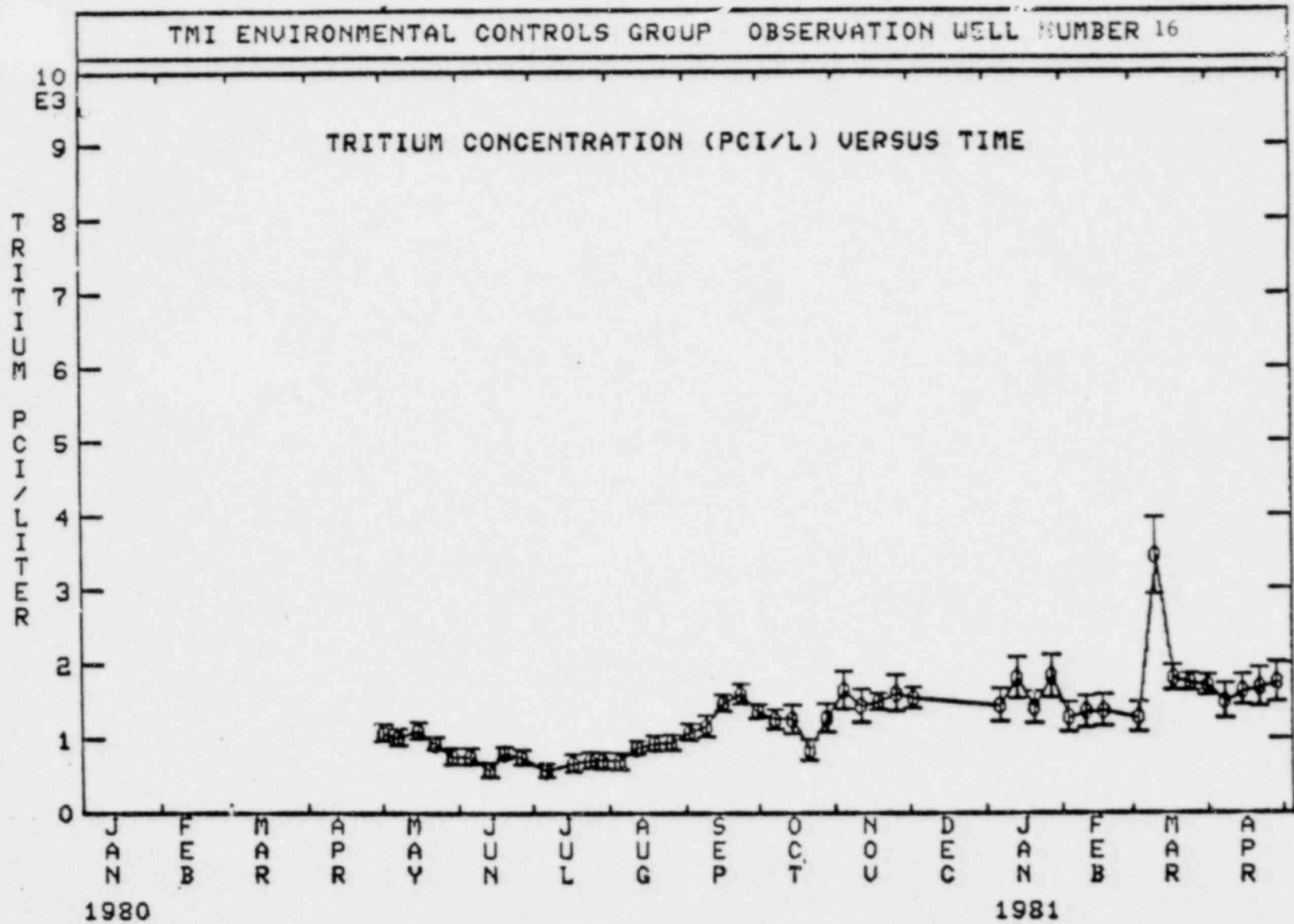


FIGURE 1, PAGE 14

CONTAINMENT INTEGRITY ASSESSMENT PROGRAM
TMI-2 GROUNDWATER MONITORING
GAMMA SCAN RESULTS
FOR
LIQUID MONITORING STATION MW-2
SHEET 1 OF 2

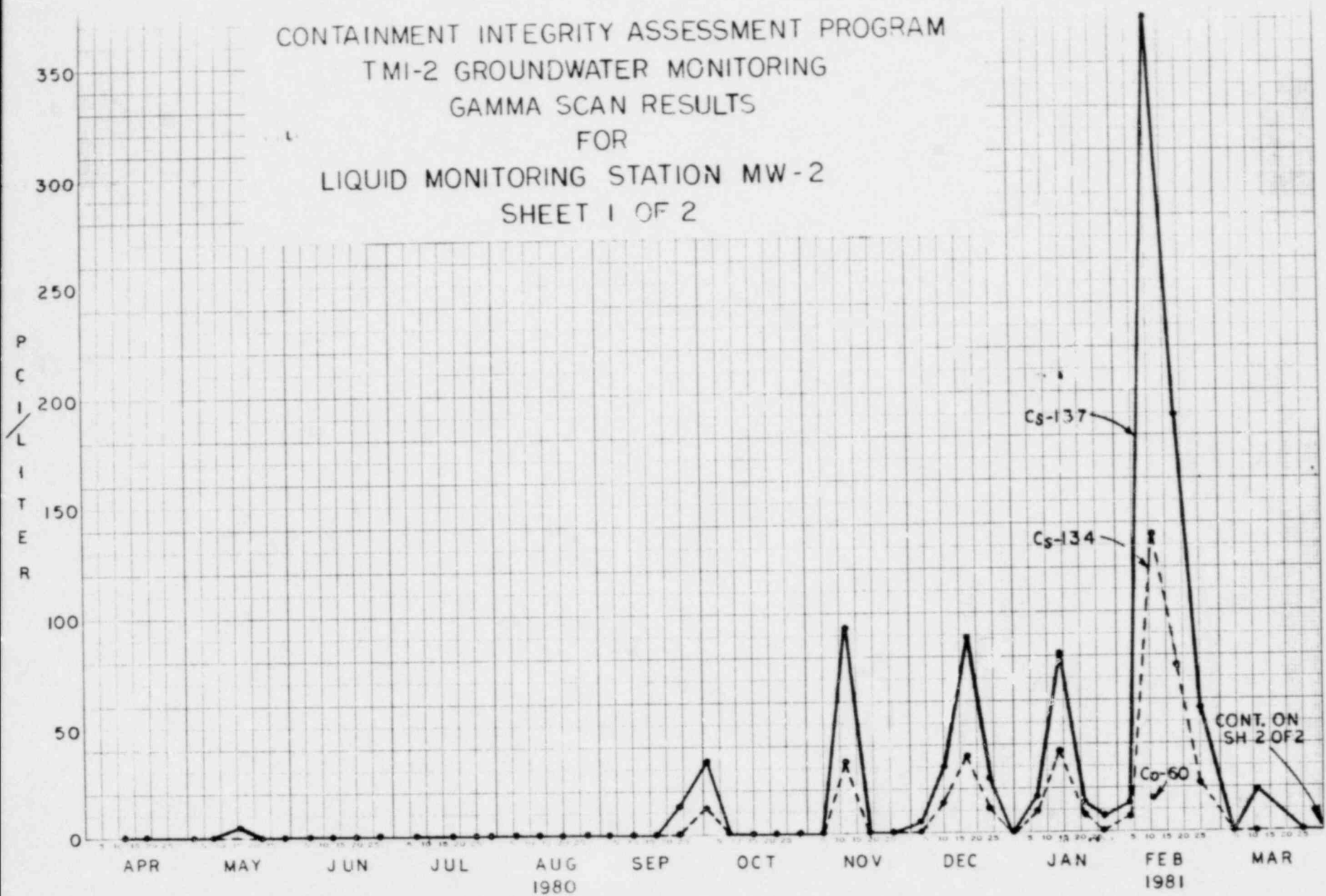


FIGURE 2, PAGE 1

CONTAINMENT INTEGRITY ASSESSMENT PROGRAM
TMI-2 GROUNDWATER MONITORING
GAMMA SCAN RESULTS
FOR
LIQUID MONITORING STATION MW-2
SHEET 2 OF 2

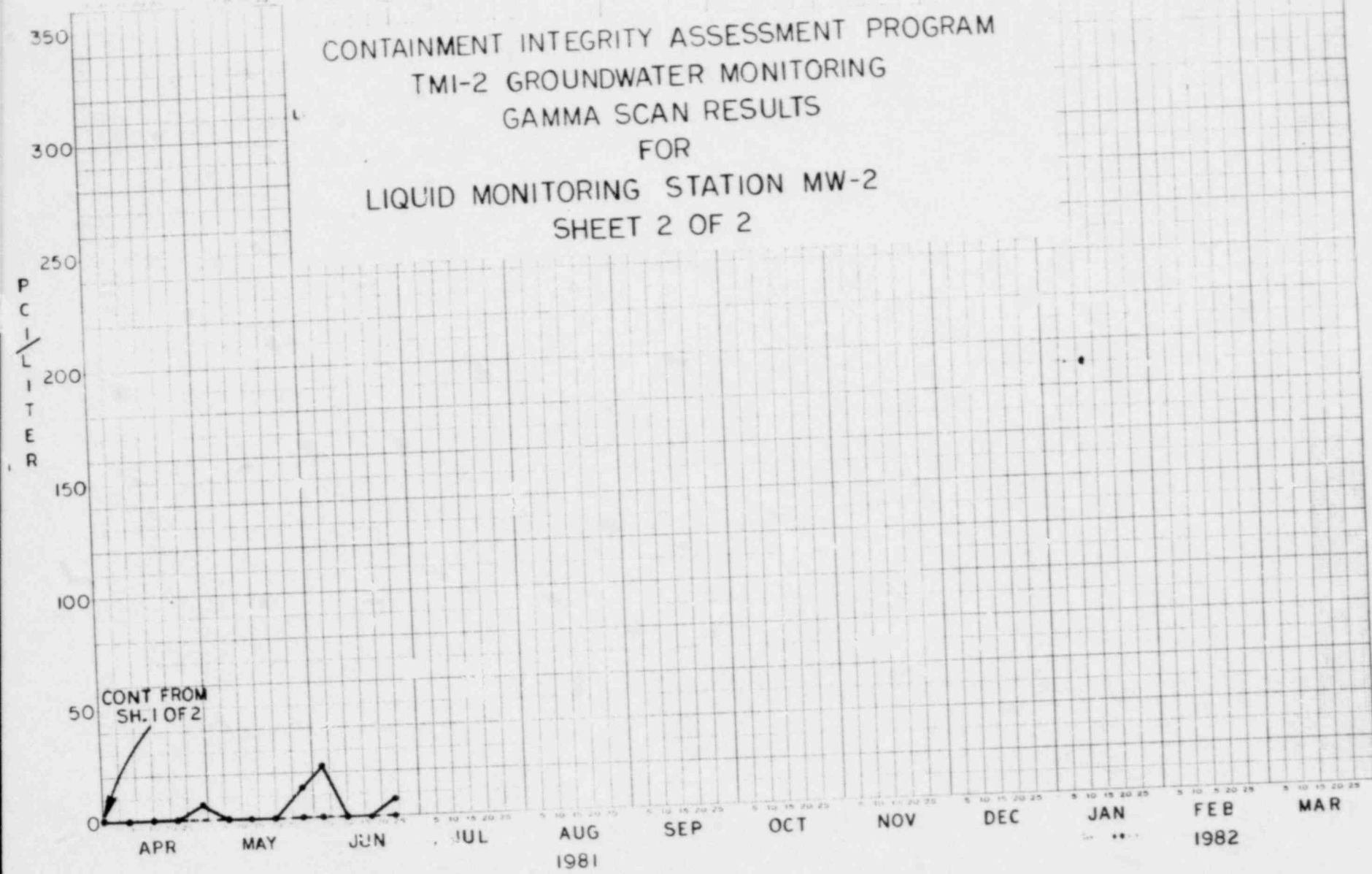
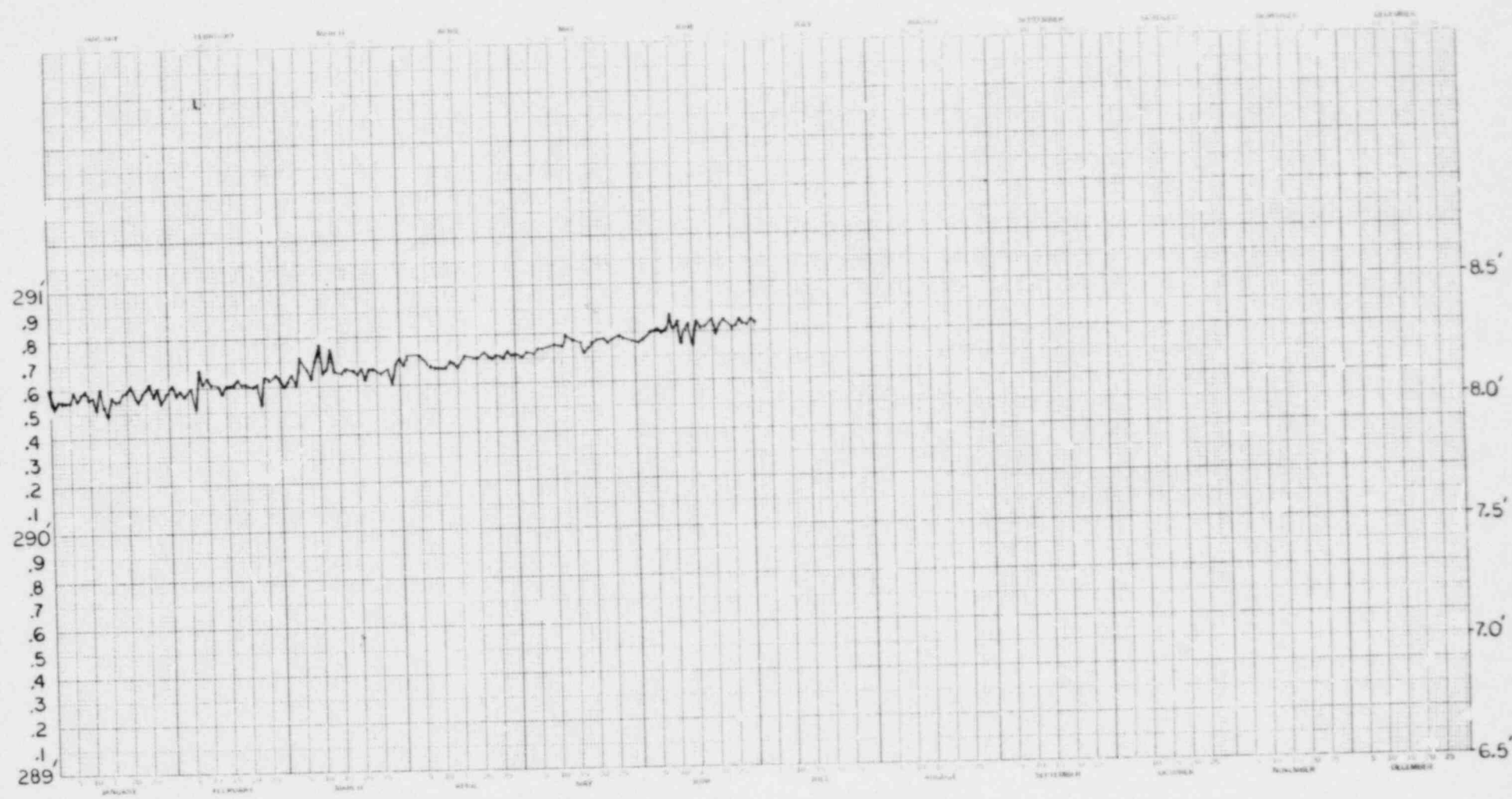


FIGURE 2, PAGE 2

TMI UNIT #2 REACTOR BUILDING SUMP LEVEL (1981)

47 2810

K-E
1 YEAR BY DAYS X 100 DIVISIONS
MULTIPLY X 100000



J.A. SMITH

FIGURE 3, PAGE 2

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