Weyerhaeuser

P.O. Box 787
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June 12, 1996

Mr. Jim Coffey, Supervisor
Permitting Section
Solid Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687

Fac/Perm/Co ID.#	Date	Doc ID#
94-01	10/06/2011	DIN 15311

Subject: Weyerhaeuser Industrial Landfill, Permit Number 94-01, Washington County, Plymouth

Dear Jim:

In a letter to your office dated October 23, 1995, Weyerhaeuser's Plymouth Mill requested clarification of the status of its industrial landfill relative to newly adopted industrial waste rules. A response was received dated November 13,1995 requesting additional information to assist the Solid Waste Section in preliminary evaluation of the referenced landfill.

The Weyerhaeuser industrial landfill is an existing landfill as defined with no proposed lateral expansion. It is the desire of Weyerhaeuser to close the existing landfill upon completing the permitted design with one exception. A design change to reduce the "flat" surface area and potential for infiltration after closure is proposed which would decrease the final cap area by increasing the slope from 20:1 to 3:1. The resulting minimized cap would have a slope of 10%.

To address the proposal to operate the existing landfill past January 1,1998, information required by the Section is enclosed including a waste characterization and analysis; plat showing site footprint, permitted boundary, property boundary and ground water monitor wells; ground water analyses and an explanation of the results relative to ground water standards. In addition, a second plat showing the proposed enhancement of the existing landfill to ensure compliance with ground water standards is enclosed.

The Plymouth facility has continued phased closure of the landfill as specified in our closure plan to decrease the potential for leachate generation from exposed areas. Compacted clay has been used on the side slopes followed by vegetative cover.

Weyerhaeuser has submitted a construction permit application for a lined landfill that would be constructed prior to completion of the existing landfill. Further modification of the existing landfill beyond the existing footprint is not feasible. Weyerhaeuser is committed to a lined landfill upon completion of the existing landfill as designed.

Should you or your staff have questions regarding this proposal or need additional information, please call me at (919) 793-8693 or Mac Jones at 793-8326.

Sincerely

Richard L. Gay

Richard L. Gay
Environmental Manager

Enclosures

xc: Chuck Boyette

Hydrogeology

Ground water elevations were measured on January 26, 1996 and are included in Table 1. A ground water elevation contour map was constructed from the January 1996 data and is included as Figure A. Ground water flow in the vicinity of the landfill is both to the north and west with ultimate ground water discharge to Welch Creek which is located 250 to 1400 feet west of the western landfill boundary (Figure A). A ground water depression is present in an area east of the landfill, however the presence of this depression is interpreted from single monitoring well and does not conform to the overall configuration of the ground water surface based on other control information. A ground water mound also appears to be present beneath and immediately east of the present permitted waste boundary.

Ground Water Chemistry

Ground water samples have been collected in the vicinity of the Weyerhaeuser landfill since November 1989. A summary of ground water chemistry for monitoring wells MW-01 through MW-05 are included in Table 1. Time series plots of historical ground water information for the monitoring wells are included as Figures 1 through 30.

Ground water samples collected from monitoring wells MW-01 through MW-05 indicate total dissolved solids (TDS) manganese and iron above standards specified North Carolina Administrative Code, Title 15 Subchapter 2L (NCAC 2L). The standards specified for TDS, manganese and iron are 500 mg/l, 0.05 mg/l and 0.3 mg/l, respectively. Measurements above NCAC 2L occur upgradient, downgradient and cross-gradient from the landfill indicating that background ground water chemistry in the area may be in excess of the NCAC 2L standards.

Naturally occurring iron, manganese and TDS levels, above the NCAC 2L standard, are common in the sediments, surface water, and ground water along the coastal plain of North Carolina. A high level of dissolved iron can occur with oxidation of ferrous sulfides. Metallic sulfides are common in sedimentary rocks or sediments derived from the source rocks. Manganese is present in sedimentary rocks and can dissolve into ground water from manganese coatings on sediment particles. Environmental fluctuations in pH, salinity, or temperature can also influence the rate of exchange of trace metals in water and sediments. High concentrations of dissolved solids can be attributed to the proximity of farmlands and forests (Cross, et al, 1970 and Hem, 1992).

The North Carolina Department of Environmental Management, Ground Water Section (NCDEM) has conducted ambient ground water sampling in the vicinity of Weyerhaeuser's Plymouth Mill Facility. A shallow ground water sample collected in Washington County, NC by the NCDEM on 04/26/77 from well J-13D-1 at a depth of 25-35 feet contained 131 mg/l TDS, 2.0 mg/l Iron and 0.1 mg/l Manganese. Additionally, a ground water sample collected from the water table at the Plymouth Research Station on 01/18/89 by the NCDEM contained 91 mg/l TDS, 27.0 mg/l Iron and 0.2 mg/l manganese. The detected concentrations of iron and manganese in these ambient samples are in excess of the 2L standard. These results support the theory that naturally occurring shallow ground water conditions in the area of the Weyerhaeuser landfill may be in excess of NCAC 2L standards with respect to iron and manganese.

Ground Water Modeling

Ground water chemistry data from samples collected on August 1, 1995 and contaminant transport parameters calculated for the recent investigations performed on-site were used to conduct predictive modeling. This assessment was to estimate any ground water in excess of NCAC 2L standards that may occur in the vicinity of the Weyerhaeuser landfill based on information from the former study (Recker and Dower, 1996). The Dominico Model was used to predict TDS concentrations at the compliance boundary

500 feet downgradient from the southwestern edge of the landfill (Dominico, 1987). A worst case scenario approach was adopted for this investigation. It was assumed that the highest concentration of TDS from the 08/01/95 sampling event, 2310 mg/l in samples collected from monitoring well MW-05, was indicative of TDS levels throughout the landfill cell. A hydraulic gradient of 0.0168, calculated between MW-05 to MW-02, was applied across the entire volume of the landfill cell. The gradient was calculated between MW-05 to MW-02 because these wells represented the highest concentrations of TDS during the 08/01/95 sampling event at 2310 mg/l and 1550 mg/l ,respectively. This has the effect of modeling TDS concentrations downgradient using the entire landfill volume as the source.

Results from the ground water modeling suggest that TDS levels at the compliance boundary will not exceed 500 mg/l. These results are supported by the 08/01/95 TDS concentrations observed in the downgradient wells MW-04 and MW-03, which were 180 mg/l and 140 mg/l respectively. A summary of the model calculations are included as Attachment 1.

Monitoring Well Nomenclature

The Weyerhaeuser Plymouth operation utilizes a variety of ground water monitoring well throughout the facility. To better manage ground water information Weyerhaeuser has opted to redesignate all monitoring wells associated with the current landfill. Monitoring wells designations will be changed from "MW" to "LF". A listing of the former and current designations are provided as Attachment II for review. Weyerhaeuser will be retagging each well to reflect these changes.

Summary

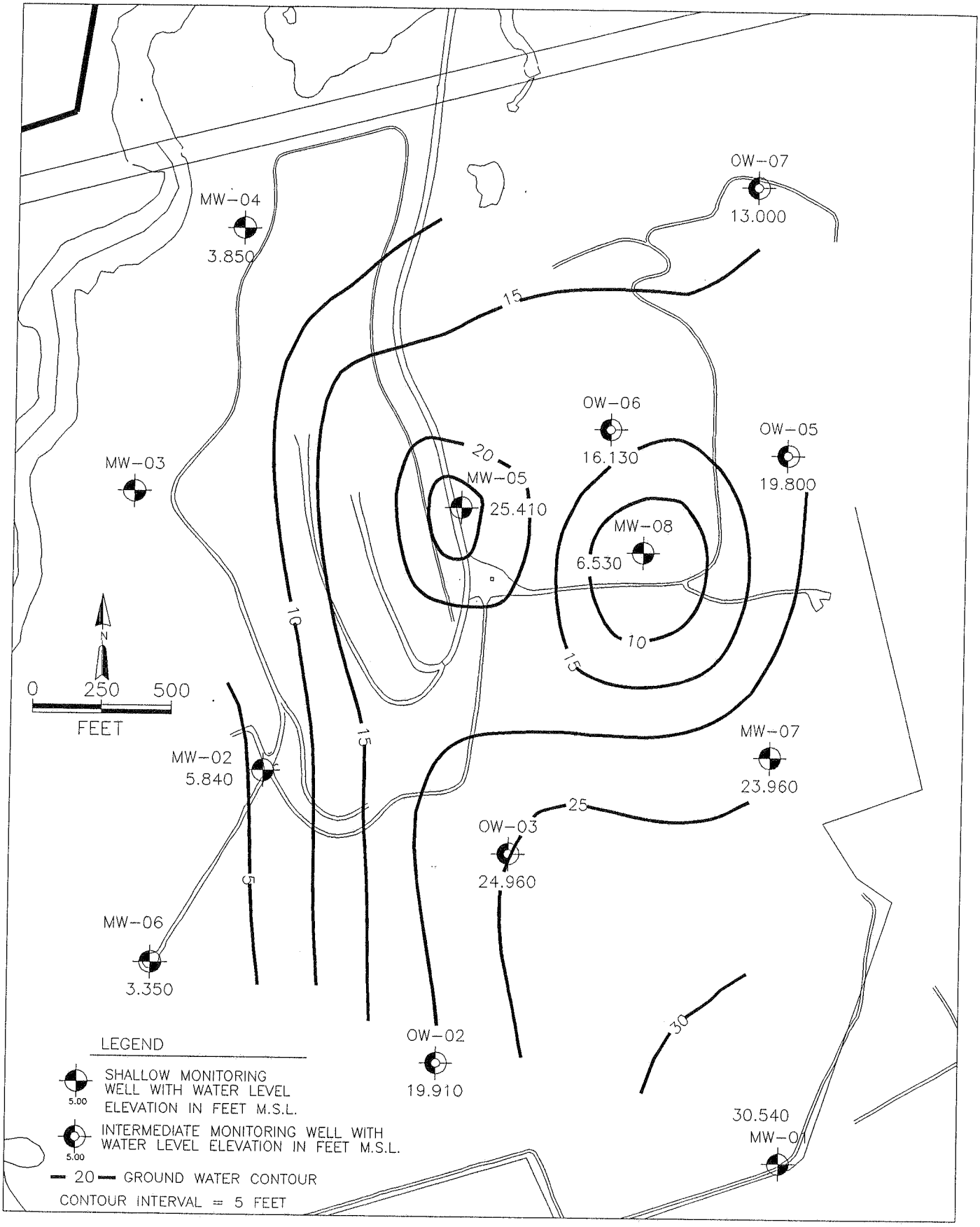
Manganese and iron concentrations observed at the Plymouth Mill Facility Landfill appear to be indicative of naturally occurring background levels. Predictive modeling indicates that future TDS concentrations at the 500 foot compliance boundary should not be in excess of NCAC 2L standard given current landfill conditions.

References

Dominico, P.A., 1987, An analytical model for multidimensional transport of a decaying contaminant species: Journal of Hydrology, V. 91, p.49-58.

Recker, S. and R.A. Dower, 1996, Wastewater Treatment Lagoon Investigation Findings: Letter to the State of North Carolina Department of Environment, Health and Natural Resources, May 17, 1996.

FIGURES



Delta
Environmental Consultants, Inc.
Charlotte, North Carolina

TITLE:
GROUND WATER CONTOUR MAP
PLYMOUTH LANDFILL WELLS (01/26/96)
WEYERHAEUSER

DWN: DEK	DES.:	PROJECT NO.: E096-038
CHKD:	APPD:	
DATE: 06/04/96	REV.:	FIGURE NO.: A

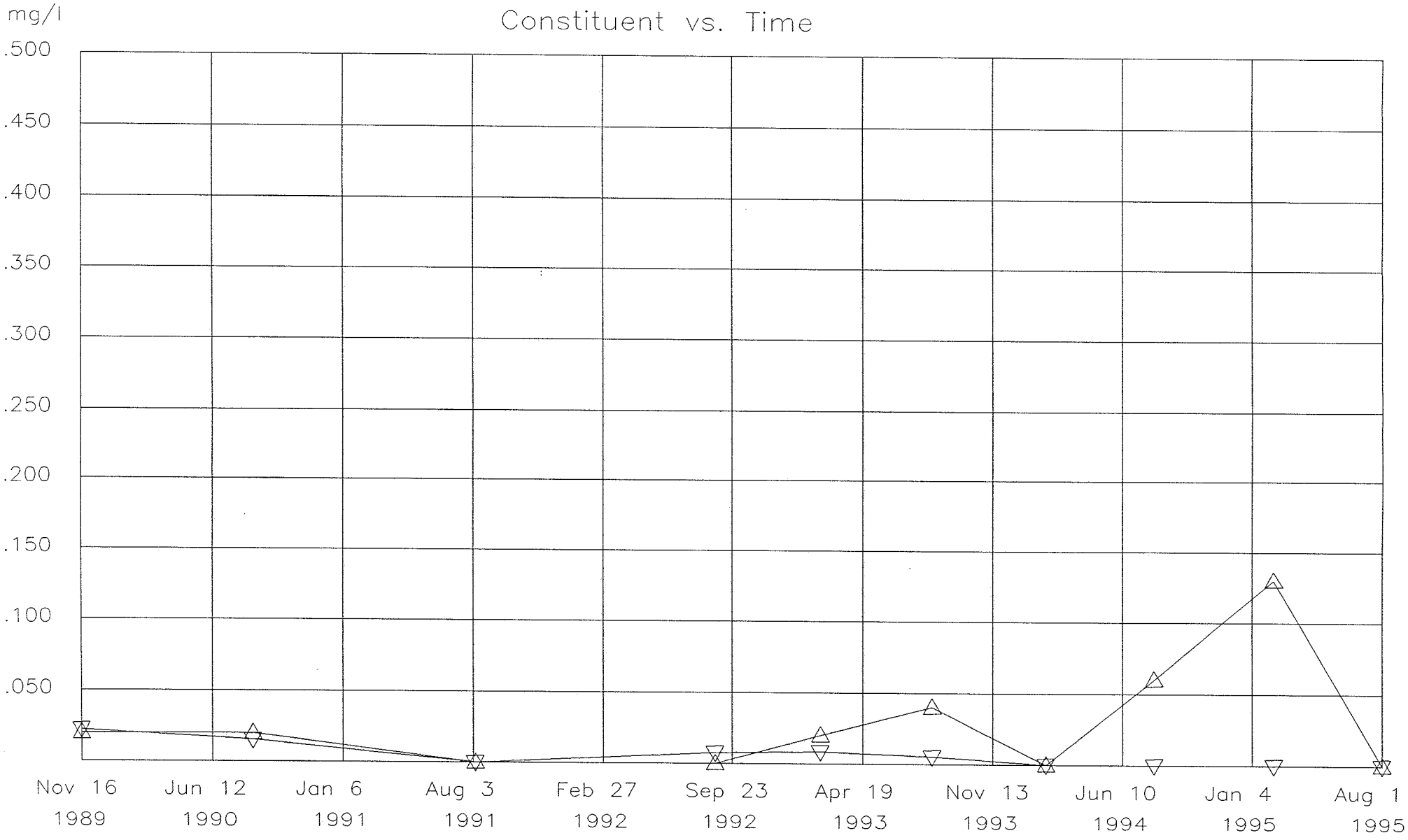
FIGURE 1

PF Code: T

Site: MW-01

△ = Nitrate (as N)

▽ = Total Organic Halides



TABLE

GROUND WATER ANALYTICAL RESULTS
LANDFILL WELLS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-038

SITE	DATE	Arsenic (mg/l)	BOD (mg/l)	COD (mg/l)	Chromium (mg/l)	Fluoride (mg/l)	Lead (mg/l)	Mercury (mg/l)	Silver (mg/l)
NC-2L-STDS		0.05			0.05	2.0	0.015	0.0011	0.018
MW-01	11/16/89	<0.005	2.6	32	<0.01	<0.10	<0.005	<0.0002	<0.005
MW-01	08/16/90	<0.005	<1	5	<0.01	<0.1	<0.005	<0.0002	<0.005
MW-01	08/08/91	<0.005	1.9	20	0.014	<0.1	0.007	<0.0002	<0.005
MW-01	08/27/92	<0.005	1.8	20	0.03	<0.1	<0.005	0.0004	<0.005
MW-01	02/11/93	<0.005	2.9	11	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-01	08/09/93	<0.005	2	18	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-01	02/07/94	<0.005	2.3	<5	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-01	08/01/94	<0.01	2.3	<10	<0.01	<0.1	<0.01	<0.0002	<0.01
MW-01	02/09/95	<0.01	2.3	<10	<0.010	<0.10	<0.010	<0.0002	<0.010
MW-01	08/01/95	<0.010	2.2	<10	<0.010	0.1	<0.010	<0.0002	<0.010
MW-02	11/16/89	<0.005	1.2	20	[0.052]	<0.1	[0.026]	<0.0002	0.007
MW-02	08/16/90	<0.005	1.1	<5	[0.053]	<0.1	0.005	0.0005	<0.005
MW-02	08/08/91	<0.005	<1	37	0.04	<0.1	[0.025]	<0.0002	<0.005
MW-02	08/27/92	<0.005	1.1	27	0.042	<0.1	<0.005	0.0008	<0.005
MW-02	02/11/93	<0.005	<1	6	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-02	08/09/93	0.008	1.6	31	0.024	<0.1	[0.026]	0.0006	<0.005
MW-02	02/07/94	<0.005	1.4	<5	0.015	<0.1	[0.022]	0.0002	<0.005
MW-02	08/01/94	<0.01	<1	26	0.025	<0.1	0.014	0.0006	<0.010
MW-02	02/09/95	<0.010	1.6	46	0.026	0.14	[0.016]	<0.0002	<0.010
MW-02	08/01/95	<0.010	3	31	0.038	0.1	[0.934]	<0.0002	<0.010
MW-03	11/16/89	<0.005	<1	28	<0.01	0.11	<0.005	<0.0002	0.005
MW-03	08/16/90	<0.005	1.5	<5	0.012	<0.1	<0.005	<0.0002	<0.005
MW-03	08/08/91	<0.005	2.5	8	<0.01	<0.1	<0.005	<0.0002	<0.550
MW-03	08/27/92	<0.005	1.9	<5	0.028	<0.1	<0.005	<0.0002	<0.005
MW-03	02/11/93	<0.005	1.1	6	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-03	08/09/93	<0.005	2.1	19	<0.005	<0.1	<0.005	<0.0002	<0.005

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level
For RCL LANDFILLPO

GROUND WATER ANALYTICAL RESULTS
LANDFILL WELLS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-038

SITE	DATE	TOC (mg/l)	TOX (mg/l)	pH	Barium (mg/l)	Chloride (mg/l)	Copper (mg/l)	Iron (mg/l)	Manganese (mg/l)
NC-2L-STDS				6.5-8.5	2.0	250	1.0	0.3	0.05
MW-01	11/16/89	0.84	0.023	4.9	0.24	31	0.043	[13.5]	[0.161]
MW-01	08/16/90	1.35	0.016	4.6	0.207	32	0.015	[8.25]	[0.106]
MW-01	08/08/91	2.22	<0.005	4.8	[2.36]	38	0.025	[19.43]	[0.132]
MW-01	08/27/92	4.98	0.008	[7.5]	0.181	39	0.091	[10.5]	[0.17]
MW-01	02/11/93	2.2	0.009	5.6	0.69	34	0.026	[15.69]	[0.137]
MW-01	08/09/93	5.41	0.006	4.9	0.435	45	0.018	[13.52]	[0.147]
MW-01	02/07/94	1.67	<0.005	5.2	0.195	48	0.017	[17.13]	[0.167]
MW-01	08/01/94	2.89	<0.005	5	1.016	53	<0.2	[17.75]	[0.157]
MW-01	02/09/95	1.69	<0.005	4.4	<0.5	58	<0.2	[16.08]	[0.193]
MW-01	08/01/95	1.33	<0.005	4.6	<0.5	56	<0.2	[16.2]	[0.195]
MW-02	11/16/89	1.53	0.017	6.3	0.12	52	0.069	[23.5]	[0.113]
MW-02	08/16/90	3.59	0.078	6.1	0.282	132	0.027	[14.11]	[0.218]
MW-02	08/08/91	12.46	0.044	6.4	0.08	[362]	0.505	[14.85]	[0.578]
MW-02	08/27/92	6.23	0.046	[7.5]	0.084	172	0.09	[1.379]	[0.185]
MW-02	02/11/93	2.81	0.028	6	0.085	21	<0.01	[0.977]	0.038
MW-02	08/09/93	30.03	0.03	6.1	0.219	143	0.054	[25.32]	[0.287]
MW-02	02/07/94	10.85	0.026	[6.6]	0.111	180	0.041	[18.05]	[0.191]
MW-02	08/01/94	35.09	0.034	6.2	<0.5	[260]	<0.2	[19.34]	[0.629]
MW-02	02/09/95	14.8	0.029	6.3	<0.5	[551]	<0.2	[18.93]	[0.219]
MW-02	08/01/95	12.33	0.027	[6.5]	<0.5	[296]	<0.2	[21.02]	[0.155]
MW-03	11/16/89	2.07	0.04	6.3	0.25	23	0.034	[6.453]	[0.282]
MW-03	08/16/90	1.71	0.449	6.3	0.213	26	0.015	[3.448]	[0.375]
MW-03	08/08/91	5.66	0.054	6.2	0.128	32	0.02	[11.74]	[0.402]
MW-03	08/27/92	4.31	0.008	[7]	0.127	27	0.094	[10.49]	[0.364]
MW-03	02/11/93	7.71	0.005	6.1	0.201	27	0.031	[3.939]	[0.396]
MW-03	08/09/93	18.26	0.007	6	0.16	30	0.015	[3.791]	[0.441]

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For RCL LANDFILLPO

GROUND WATER ANALYTICAL RESULTS
LANDFILL WELLS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-038

SITE	DATE	Nitrate (as N) (mg/l)	Selenium (mg/l)	Sulfate (mg/l)	TDS (mg/l)	Zinc (mg/l)
NC-2L-STDS		10.0	0.05	250.0	500	2.1
MW-01	11/16/89	0.02	<0.005	45	153	0.038
MW-01	08/16/90	0.02	0.007	56	162	0.007
MW-01	08/08/91	<0.02	<0.005	80	152	0.06
MW-01	08/27/92	<0.02	<0.005	58	139	0.059
MW-01	02/11/93	0.02	<0.005	60	121	0.019
MW-01	08/09/93	0.04	<0.01	56	129	0.023
MW-01	02/07/94	<0.02	<0.01	30	188	0.016
MW-01	08/01/94	0.06	<0.02	60	214	0.05
MW-01	02/09/95	0.13	<0.02	50	198	<0.05
MW-01	08/01/95	<0.04	<0.02	70	250	<0.05
MW-02	11/16/89	0.26	<0.005	80	[808]	0.069
MW-02	08/16/90	0.4	<0.005	[400]	---	<0.005
MW-02	08/08/91	0.12	<0.005	[1180]	[2400]	0.049
MW-02	08/27/92	0.06	<0.005	20	[550]	0.045
MW-02	02/11/93	2.2	<0.005	35	142	<0.01
MW-02	08/09/93	0.14	<0.01	[250]	[1520]	0.053
MW-02	02/07/94	0.02	<0.01	[640]	[966]	0.384
MW-02	08/01/94	0.3	<0.02	[420]	[1210]	<0.05
MW-02	02/09/95	0.17	<0.02	[800]	[3040]	<0.05
MW-02	08/01/95	0.15	<0.02	[320]	[1550]	<0.05
MW-03	11/16/89	<0.02	<0.005	20	382	0.027
MW-03	08/16/90	0.03	<0.005	56	328	<0.005
MW-03	08/08/91	<0.02	<0.005	40	285	0.029
MW-03	08/27/92	<0.02	<0.005	[250]	229	0.044
MW-03	02/11/93	0.04	<0.005	15	294	<0.01
MW-03	08/09/93	<0.02	<0.01	14	340	<0.01

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For RCL LANDFILLPO

GROUND WATER ANALYTICAL RESULTS
LANDFILL WELLS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-038

SITE	DATE	Arsenic (mg/l)	BOD (mg/l)	COD (mg/l)	Chromium (mg/l)	Fluoride (mg/l)	Lead (mg/l)	Mercury (mg/l)	Silver (mg/l)
NC-2L-STDS		0.05			0.05	2.0	0.015	0.0011	0.018
MW-03	02/07/94	<0.005	1.5	<5	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-03	08/01/94	<0.010	<1.0	16	<0.010	<0.10	<0.010	<0.0002	<0.010
MW-03	02/09/95	<0.010	1.6	<10	<0.010	0.12	<0.010	<0.0002	<0.010
MW-03	08/01/95	<0.010	1.5	<10	<0.010	0.12	<0.010	<0.0002	<0.010
MW-04	11/16/89	<0.005	<1	16	0.022	0.29	0.008	0.0003	<0.005
MW-04	08/16/90	<0.005	<1	<5	0.016	<0.1	<0.005	<0.0002	<0.005
MW-04	08/08/91	<0.005	1.1	<5	<0.01	<0.1	<0.005	<0.0002	<0.005
MW-04	08/27/92	<0.005	1.4	16	0.044	0.11	<0.005	<0.0002	<0.005
MW-04	02/11/93	<0.005	1	11	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-04	08/09/93	<0.005	<1	<5	0.006	<0.1	0.01	<0.0002	<0.005
MW-04	02/07/94	0.006	1.1	<5	<0.005	<0.1	<0.005	<0.0002	<0.005
MW-04	08/01/94	<0.010	1.4	11	0.04	<0.10	[0.038]	0.0004	<0.010
MW-04	02/09/95	<0.010	<1.0	<10	<0.010	0.14	<0.010	<0.0002	<0.010
MW-04	08/01/95	<0.010	1.3	<10	<0.010	0.11	<0.010	<0.0002	<0.010
MW-05	11/16/89	<0.005	<1	79	<0.01	0.39	<0.005	0.0009	<0.005
MW-05	08/16/90	<0.005	<1	26	<0.01	0.48	0.008	[0.0033]	<0.005
MW-05	08/08/91	<0.005	<1	20	<0.01	<0.1	0.011	0.0008	<0.005
MW-05	08/27/92	<0.005	<1	14	0.038	<0.1	0.009	0.0006	<0.005
MW-05	02/11/93	<0.005	1.2	60	0.007	0.1	0.007	0.0008	<0.005
MW-05	08/09/93	<0.005	2.8	51	<0.005	<0.1	0.006	0.0006	<0.005
MW-05	02/07/94	<0.005	1.5	33	<0.005	<0.1	0.014	<0.0002	<0.005
MW-05	08/01/94	0.01	2.5	59	<0.010	<0.10	<0.010	0.0006	<0.010
MW-05	02/09/95	0.013	2.5	35	<0.010	0.13	<0.010	0.0002	<0.010
MW-05	08/01/95	<0.010	4.2	51	<0.010	0.14	<0.010	<0.0002	<0.010

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For RCL LANDFILLPO

GROUND WATER ANALYTICAL RESULTS
LANDFILL WELLS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-038

SITE	DATE	TOC (mg/l)	TOX (mg/l)	pH	Barium (mg/l)	Chloride (mg/l)	Copper (mg/l)	Iron (mg/l)	Manganese (mg/l)
NC-2L-STDS				6.5-8.5	2.0	250	1.0	0.3	0.05
MW-03	02/07/94	5.56	0.01	6.2	0.117	32	0.02	[3.61]	[0.439]
MW-03	08/01/94	8.88	0.008	[6.5]	<0.5	51	<0.2	[16.26]	[0.72]
MW-03	02/09/95	3.63	0.013	6.3	<0.5	23	<0.2	[5.41]	[0.495]
MW-03	08/01/95	<1.00	0.008	6.4	<0.5	11	<0.2	[5.575]	[0.237]
MW-04	11/16/89	3.2	0.133	4.6	0.225	120	0.053	[36.5]	[1.09]
MW-04	08/16/90	1.11	0.303	5.6	0.092	16	0.015	[2.852]	[0.108]
MW-04	08/08/91	9.15	0.057	4.8	0.06	54	0.019	[6.646]	[0.239]
MW-04	08/27/92	8.49	0.016	6.3	<0.05	14	0.096	[12.66]	[0.565]
MW-04	02/11/93	10.93	0.02	5.3	0.088	38	0.029	[11.11]	[0.387]
MW-04	08/09/93	6.99	0.028	5.2	0.141	18	0.02	[13.17]	[0.077]
MW-04	02/07/94	7.88	0.025	5.6	0.054	31	0.025	[4.31]	[0.262]
MW-04	08/01/94	2.48	0.016	5.1	<0.5	14	<0.2	[74.2]	[0.135]
MW-04	02/09/95	2.22	0.016	4.7	<0.5	21	<0.2	[5.43]	[0.154]
MW-04	08/01/95	3.72	0.012	5.2	<0.5	24	<0.2	[5.612]	[0.129]
MW-05	11/16/89	7.86	0.27	4.4	0.22	157	0.083	[11.4]	[0.123]
MW-05	08/16/90	5.42	0.147	5.4	0.49	84	0.018	[0.375]	[0.147]
MW-05	08/08/91	12.73	0.039	5.9	0.081	98	0.028	[2.926]	[0.413]
MW-05	08/27/92	9.82	0.044	6.1	0.137	96	0.07	[2.812]	[0.115]
MW-05	02/11/93	44.09	0.049	6	0.146	116	0.042	[1.004]	[0.137]
MW-05	08/09/93	100.4	0.042	6.2	0.295	118	0.029	[1.107]	[0.183]
MW-05	02/07/94	17.57	0.032	6.4	0.202	71	0.02	[1.939]	[0.139]
MW-05	08/01/94	56.52	0.077	[6.6]	<0.5	101	<0.2	[3.329]	[0.43]
MW-05	02/09/95	22.1	0.062	6.4	<0.5	75	<0.2	[4.859]	[0.199]
MW-05	08/01/95	22.21	0.054	[6.6]	<0.5	82	<0.2	[3.89]	[0.235]

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed
[] =Greater than Action Level
For RCL LANDFILLPO

GROUND WATER ANALYTICAL RESULTS
LANDFILL WELLS
WEYERHAEUSER
PLYMOUTH, NORTH CAROLINA
DELTA PROJECT NO. E096-038

SITE	DATE	Nitrate (as N) (mg/l)	Selenium (mg/l)	Sulfate (mg/l)	TDS (mg/l)	Zinc (mg/l)
NC-2L-STDS		10.0	0.05	250.0	500	2.1
MW-03	02/07/94	<0.02	<0.01	12	371	0.631
MW-03	08/01/94	<0.04	<0.02	10	[582]	<0.05
MW-03	02/09/95	0.08	<0.02	11	257	<0.05
MW-03	08/01/95	<0.04	<0.02	9	140	<0.05
MW-04	11/16/89	<0.02	<0.005	230	483	0.092
MW-04	08/16/90	0.06	<0.005	10	106	<0.005
MW-04	08/08/91	<0.02	<0.005	61	179	0.033
MW-04	08/27/92	<0.02	<0.005	150	314	0.062
MW-04	02/11/93	0.02	<0.005	100	206	0.018
MW-04	08/09/93	0.02	<0.01	13	93	0.029
MW-04	02/07/94	<0.02	<0.01	60	199	<0.01
MW-04	08/01/94	<0.04	<0.02	13	98	0.116
MW-04	02/09/95	0.07	<0.02	70	146	<0.05
MW-04	08/01/95	<0.04	<0.02	70	180	<0.05
MW-05	11/16/89	0.46	<0.005	[740]	[1011]	0.036
MW-05	08/16/90	0.12	<0.005	[400]	[1290]	<0.005
MW-05	08/08/91	0.14	<0.005	[1120]	[1620]	0.042
MW-05	08/27/92	0.4	<0.005	[300]	[814]	0.046
MW-05	02/11/93	0.16	<0.005	160	[1480]	0.015
MW-05	08/09/93	0.06	<0.01	110	[2020]	<0.01
MW-05	02/07/94	0.22	<0.01	120	[1380]	<0.01
MW-05	08/01/94	0.04	<0.02	90	[2360]	<0.05
MW-05	02/09/95	0.22	<0.02	80	[1830]	<0.05
MW-05	08/01/95	0.22	<0.02	48	[2310]	<0.05

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level
For RCL LANDFILLPO

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083

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Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 93-0050-WM-0042

WELL No.: MW-1

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Plymouth, North Carolina
(Road, Community, or Subdivision and Lot No.)

County: Washington

2. OWNER Weyerhaeuser Co. / Mr. John S. Pritchard
ADDRESS P.O. Box 787 (Street or Route No.)
Plymouth (City or Town) N.C. (State) 27962 (Zip Code)

3. DATE DRILLED 6-20-89 USE OF WELL Monitoring
4. TOTAL DEPTH 21.0 CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: 2.11 FT. ☐ above ☒ below TOP OF CASING.
TOP OF CASING IS 2.0' FT. ABOVE LAND SURFACE.
7. YIELD (gpm): _____ METHOD OF TEST _____
8. WATER ZONES (depth): 2' 11'
9. CHLORINATION: Type _____ Amount _____

Depth From	Depth To	DRILLING LOG Formation Description
0	5.0'	Brn Silty Sand
	8.5'	Gray " "
	15.0	" " Clay
	25.0	" " Sand

NOTE: Drlg logs from pilot hole, drilled within 5 FT. of Well - No sam collected during drlg of we

If additional space is needed use back of form.

10. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	2.0'	10.0'	2"	40 sch.	PVC

11. GROUT:

	Depth From	Depth To	Material	Method
	0	6.5	Type I	pumped

12. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	10.0	20.0	2"	.010 in.	PVC

13. GRAVEL PACK:

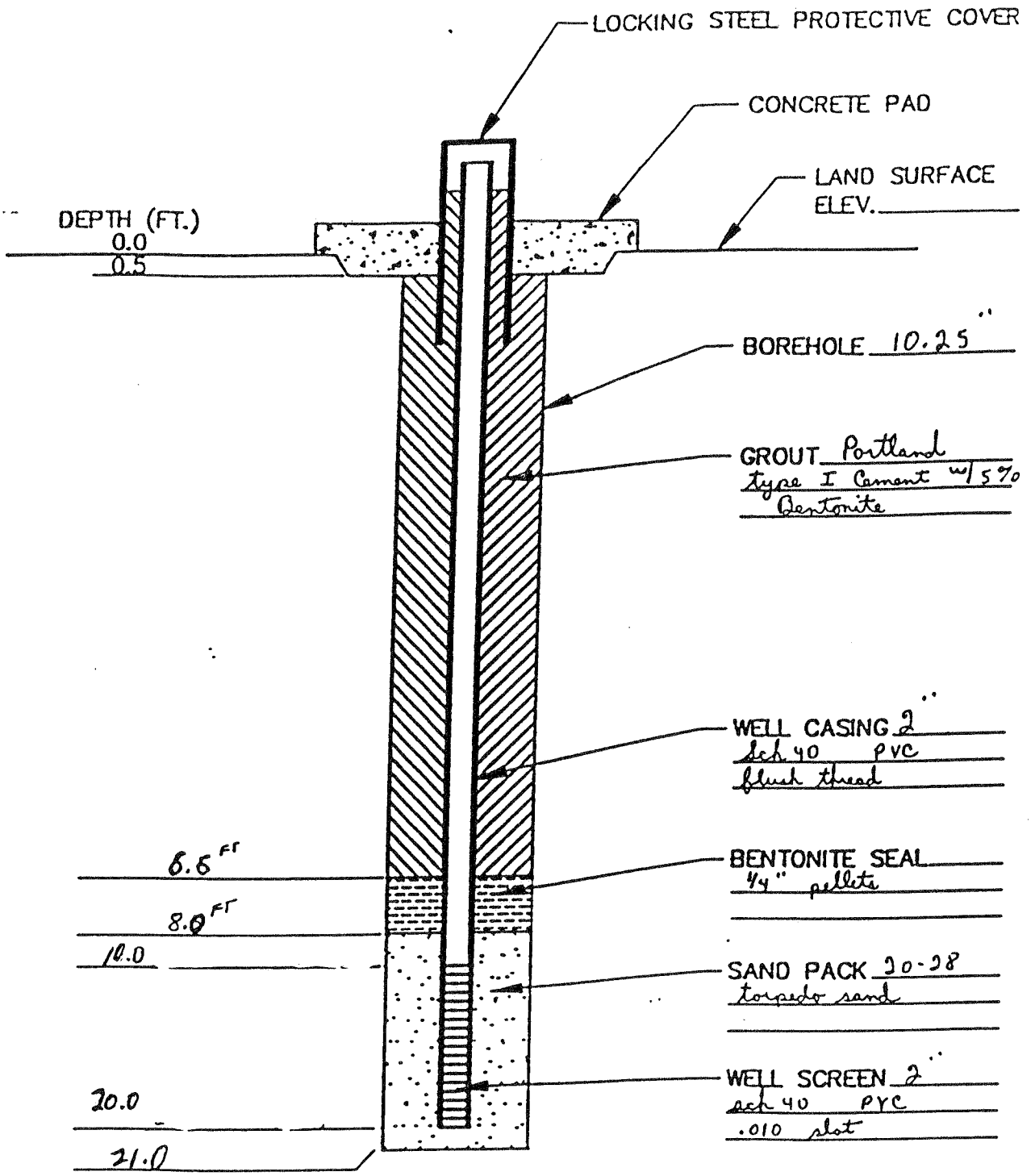
	Depth From	Depth To	Size	Material
	8	21	20-28	torpedo sand

LOCATION SKETCH
(Show direction and distance from at least two State Road or other map reference points)
See attached drawings and location map.

14. REMARKS: Wells were installed thru. 6 1/4 I.D. HSA 10 1/4 O.D.

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Floyd C Cox 7-6-89
SIGNATURE OF CONTRACTOR OR AGENT DATE



WELL CONSTRUCTION DIAGRAM

Not To Scale

PROJECT Weyerhaeuser

PROJECT NO. 467.37

WELL NO. MW-1 DATE INSTALLED 6-20-89

DRILLING CONTRACTOR Law Engineering #332 N.C.

RMT GEOLOGIST Dan Mc Donnell

RMT

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-5083

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Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 93-0050-WM-0042

WELL No.: MW-2

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Plymouth, North Carolina
County: Washington
(Road, Community, or Subdivision and Lot No.)

2. OWNER Weyerhaeuser Co. / Mr. John S. Pritchard
ADDRESS P.O. Box 787 (Street or Route No.)
Plymouth (City or Town) N.C. (State) 27962 (Zip Code)

3. DATE DRILLED 6-21-89 USE OF WELL Monitoring
4. TOTAL DEPTH 23.5' CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: 18.7' FT. ☐ above ☒ below TOP OF CASING.
TOP OF CASING IS 2.5 FT. ABOVE LAND SURFACE.
7. YIELD (gpm): _____ METHOD OF TEST _____
8. WATER ZONES (depth): 18.7'
9. CHLORINATION: Type _____ Amount _____
10. CASING:

	Depth From	To	Diameter	Wall Thickness or Weight/Ft.	Material
	2.5	13.0	2"	40 sch.	PVC

11. GROUT:

	Depth From	To	Material	Method
	0	9.4	Type I	pumped

12. SCREEN:

	Depth From	To	Diameter	Slot Size	Material
	13.0	23.0	2"	.010 in.	PVC

13. GRAVEL PACK:

	Depth From	To	Size	Material
			20-28	torpedo sand

14. REMARKS: Wells were installed thru. 6¼ I.D. HSA 10¼ O.D.

DRILLING LOG

Depth From	To	Formation Description
0	3.5'	Brn Silty Sand
3.5	8.5	Gray " Clay
8.5	23.0	Tan " Sand

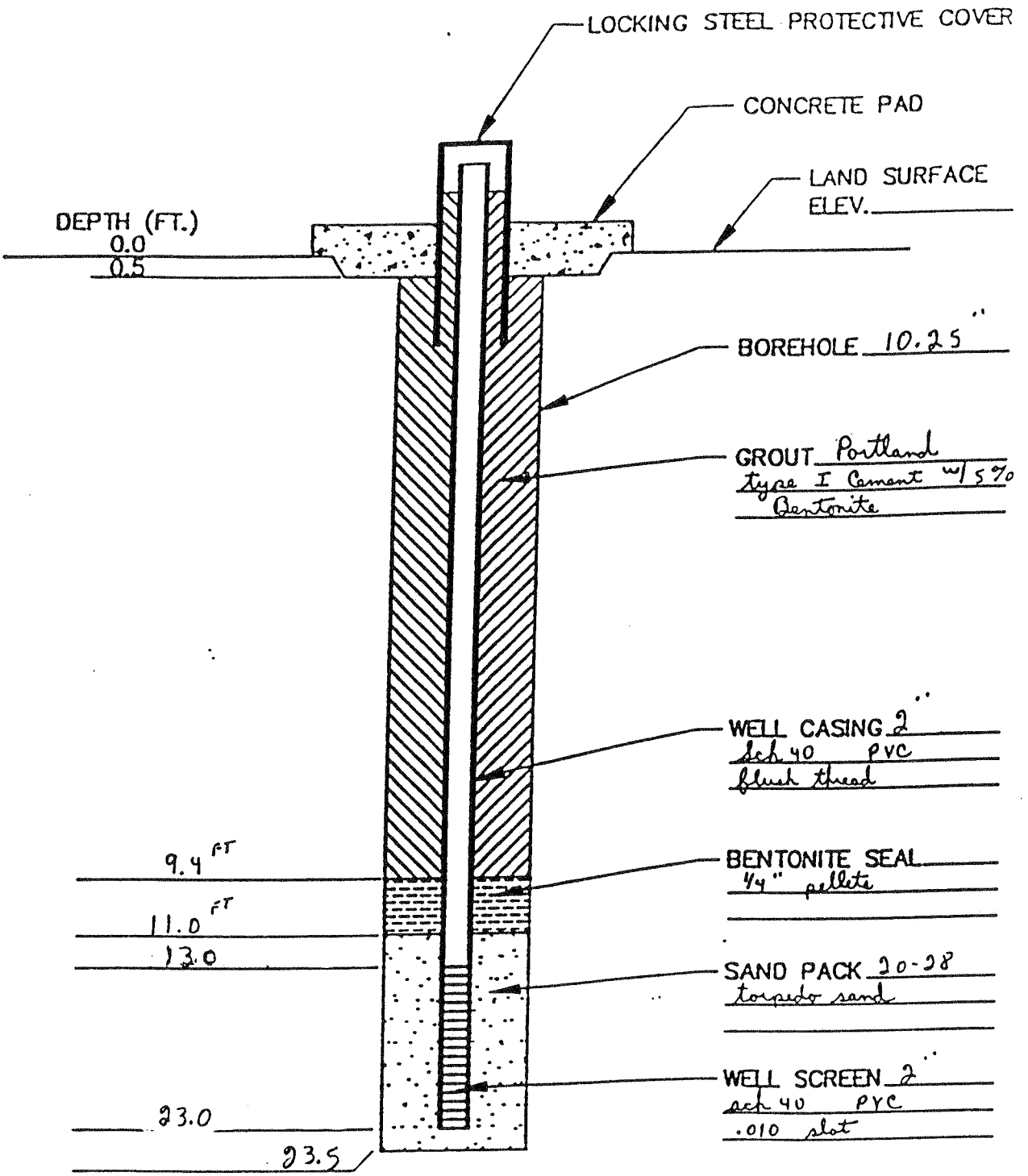
NOTE: Drlg logs from pilot hole, drilled within 5 FT. of Well - No samples collected during drlg of well

If additional space is needed use back of form.

LOCATION SKETCH
(Show direction and distance from at least two State Roads or other map reference points)
See attached drawings and location map.

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

J. Lloyd Coy 7-6-89
SIGNATURE OF CONTRACTOR OR AGENT DATE



WELL CONSTRUCTION DIAGRAM

Not To Scale

PROJECT Weyerhaeuser

PROJECT NO. 467.37

WELL NO. MW-2 DATE INSTALLED 6-21-89

DRILLING CONTRACTOR Law Engineering #332 N.C.

RMT GEOLOGIST Dan Mc Donnell

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT – GROUNDWATER SECTION
P.O. BOX 27687 – RALEIGH, N.C. 27611, PHONE (919) 733-5083

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Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 93-0050-WM-0042

WELL No.: MW-3

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Plymouth, North Carolina
County: Washington
(Road, Community, or Subdivision and Lot No.)

2. OWNER Weyerhaeuser Co. / Mr. John S. Pritchard
ADDRESS P.O. Box 787 (Street or Route No.)
Plymouth (City or Town) N.C. (State) 27962 (Zip Code)

3. DATE DRILLED 6-22-89 USE OF WELL Monitoring
4. TOTAL DEPTH 23.0' CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: 4.2 FT. ☐ above ☒ below TOP OF CASING.
TOP OF CASING IS 2'.2" FT. ABOVE LAND SURFACE.
7. YIELD (gpm): _____ METHOD OF TEST _____
8. WATER ZONES (depth): 4'.2"
9. CHLORINATION: Type _____ Amount _____
10. CASING:

	Depth From	To	Ft.	Diameter	Wall Thickness or Weight/Ft.	Material
	2'.2"	12.5'		2"	40 sch.	PVC

1. GROUT:

	Depth From	To	Ft.	Material	Method
	0	9.1		Type I	pumped

12. SCREEN:

	Depth From	To	Ft.	Diameter	in.	Slot Size	in.	Material
	12.5	22.5		2"		.010		PVC

13. GRAVEL PACK:

	Depth From	To	Ft.	Size	Material
	10.1	23.0		20-28	torpedo sand

14. REMARKS: Wells were installed thru. 6 1/4 I.D. HSA 10 1/4 O.D.

DRILLING LOG

Depth From	To	Formation Description
0	3.5	tan silt
3.5	8.5	gray silt
8.5	13.5	Brn Clayey silt
13.5	-	Radish brn sand

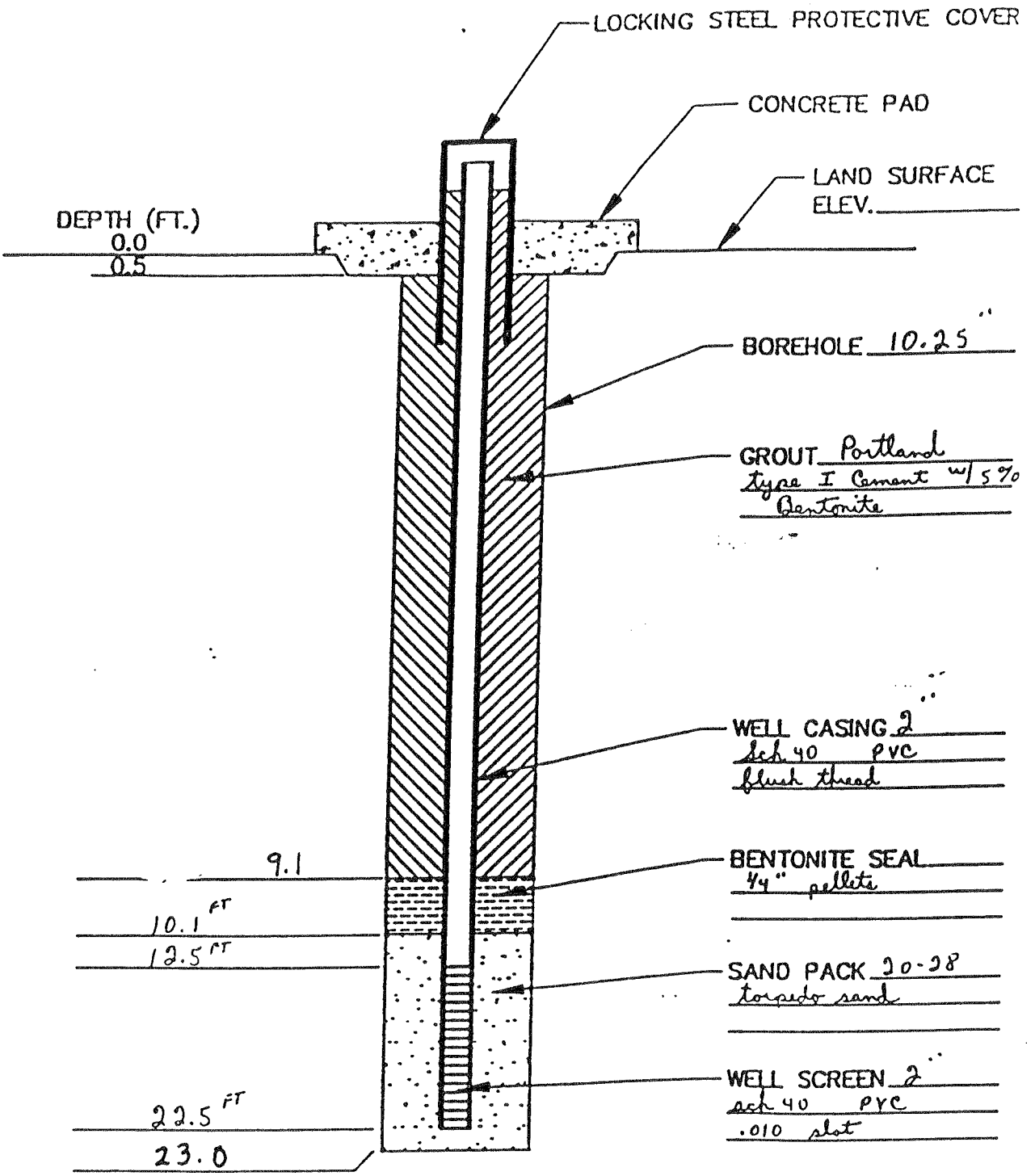
NOTE: Drlg logs from pilot hole, drilled within 5 FT. of Well - No samples collected during drlg of well

If additional space is needed use back of form.

LOCATION SKETCH
(Show direction and distance from at least two State Road or other map reference points)
See attached drawings and location map.

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Floyd C Coy — SIGNATURE OF CONTRACTOR OR AGENT
7-6-89 — DATE



WELL CONSTRUCTION DIAGRAM

Not To Scale

PROJECT Weyerhaeuser

PROJECT NO. 467.37

WELL NO. MW-3 DATE INSTALLED 6-22-89

DRILLING CONTRACTOR Law Engineering #332 N.C.

RMT GEOLOGIST Dan Mc Donnell

RMT

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
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WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 93-0050-WM-0042

WELL No. MW-4

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Plymouth, North Carolina
County: Washington
(Road, Community, or Subdivision and Lot No.)

2. OWNER Weyerhaeuser Co. / Mr. John S. Pritchard
ADDRESS P.O. Box 787 (Street or Route No.)
Plymouth (City or Town) N.C. (State) 27962 (Zip Code)

3. DATE DRILLED 6-27-89 USE OF WELL Monitoring
4. TOTAL DEPTH 19.0 CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: 4.2 FT. ☐ above ☒ below TOP OF CASING.
TOP OF CASING IS 2.0' FT. ABOVE LAND SURFACE.
7. YIELD (gpm): _____ METHOD OF TEST _____
8. WATER ZONES (depth): 4.2'
9. CHLORINATION: Type _____ Amount _____

DRILLING LOG

Depth From	To	Formation Description		
0	1.5'	Brn	Sa	Silt
3.5	5.0	Brn	Sa	Clay
8.5	10.0	"	"	"
13.5	15.0	Lite	Brn	Org Sa
18.5	20.0	Org	Brn	Sa
23.5	25.0	"	"	"

NOTE: Drlg logs from pilot hole, drilled within 5 FT. of Well - No sam collected during drlg of we

If additional space is needed use back of form.

10. CASING:

	Depth From	To	Diameter	Wall Thickness or Weight/Ft.	Material
	+2.0	8.2 Ft.	2"	40 sch.	PVC
		Ft.			
		Ft.			

11. GROUT:

	Depth From	To	Material	Method
	0	3.7 Ft.	Type I	pumped
		Ft.		

12. SCREEN:

	Depth From	To	Diameter	Slot Size	Material
	8.2	18.2 Ft.	2" in.	.010 in.	PVC
		Ft.	in.	in.	
		Ft.	in.	in.	

13. GRAVEL PACK:

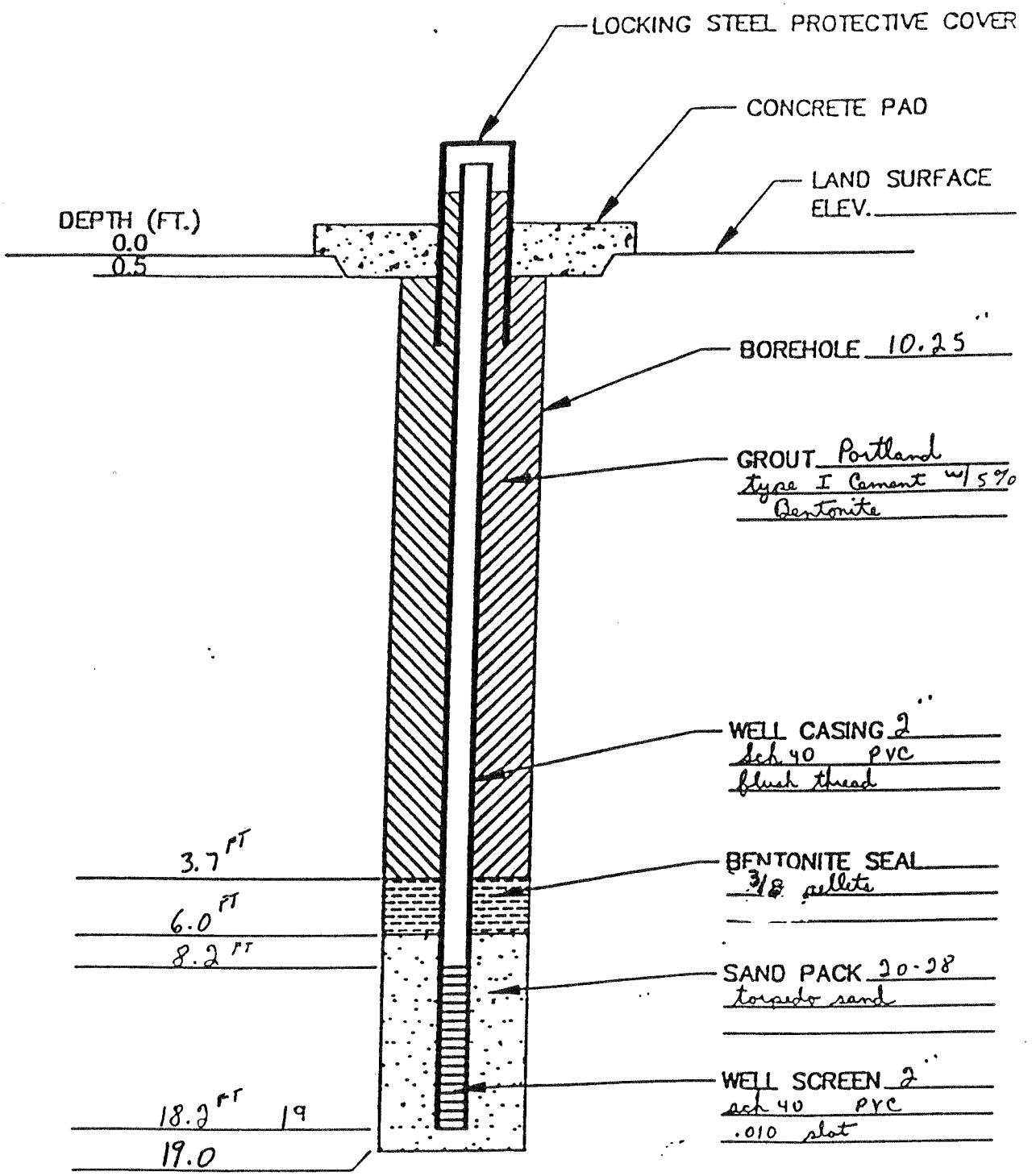
	Depth From	To	Size	Material
	6.0'	19.0' Ft.	20-28	torpedo sand
		Ft.		

LOCATION SKETCH
(Show direction and distance from at least two State Roads or other map reference points)
See attached drawings and location map.

14. REMARKS: Wells were installed thru. 6 1/4 I.D. HSA 10 1/4 O.D.

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Floyd C Coy 7-6-89
SIGNATURE OF CONTRACTOR OR AGENT DATE



WELL CONSTRUCTION DIAGRAM

Not To Scale

PROJECT Weyerhaeuser

PROJECT NO. 467.37

WELL NO. MW-4 DATE INSTALLED 6-27-89

DRILLING CONTRACTOR Law Engineering #332 N.C.

RMT GEOLOGIST Dan Mc Donnell

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT – GROUNDWATER SECTION
P.O. BOX 27687 – RALEIGH, N.C. 27611, PHONE (919) 733-5083

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Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 93-0050-WM-004

WELL No.: MW-5

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Plymouth, North Carolina
County: Washington
(Road, Community, or Subdivision and Lot No.)

2. OWNER Weyerhaeuser Co. / Mr. John S. Pritchard
ADDRESS P.O. Box 787 (Street or Route No.)
Plymouth (City or Town) N.C. (State) 27962 (Zip Code)

3. DATE DRILLED 6-20-89 USE OF WELL Monitoring
4. TOTAL DEPTH 21.0 CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: 11.1' FT. ☐ above ☒ below TOP OF CASING.
TOP OF CASING IS 1.8" FT. ABOVE LAND SURFACE.
7. YIELD (gpm): _____ METHOD OF TEST _____
8. WATER ZONES (depth): 11.1'
9. CHLORINATION: Type _____ Amount _____

DRILLING LOG

Depth From	Depth To	Formation Description
0	8.5	Brn Clay Silt
8.5	13.5	Brn silty clay
13.5	18.5	lite brn silty sa
18.5	23.5	Brn silty sa
23.5		Gr gray silty Clay

NOTE: Drlg logs from pilot hole, drilled within 5 FT. of Well - No sa collected during drlg of we

If additional space is needed use back of form.

10. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	+ 1.8"	10.5 Ft.	2"	40 sch.	PVC
		Ft.			
		Ft.			

11. GROUT:

	Depth From	Depth To	Material	Method
	0	7.2" Ft.	Type I	pumped
		Ft.		

12. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	10.5	20.5 Ft.	2" in.	.010 in.	PVC
		Ft.	in.	in.	
		Ft.	in.	in.	

13. GRAVEL PACK:

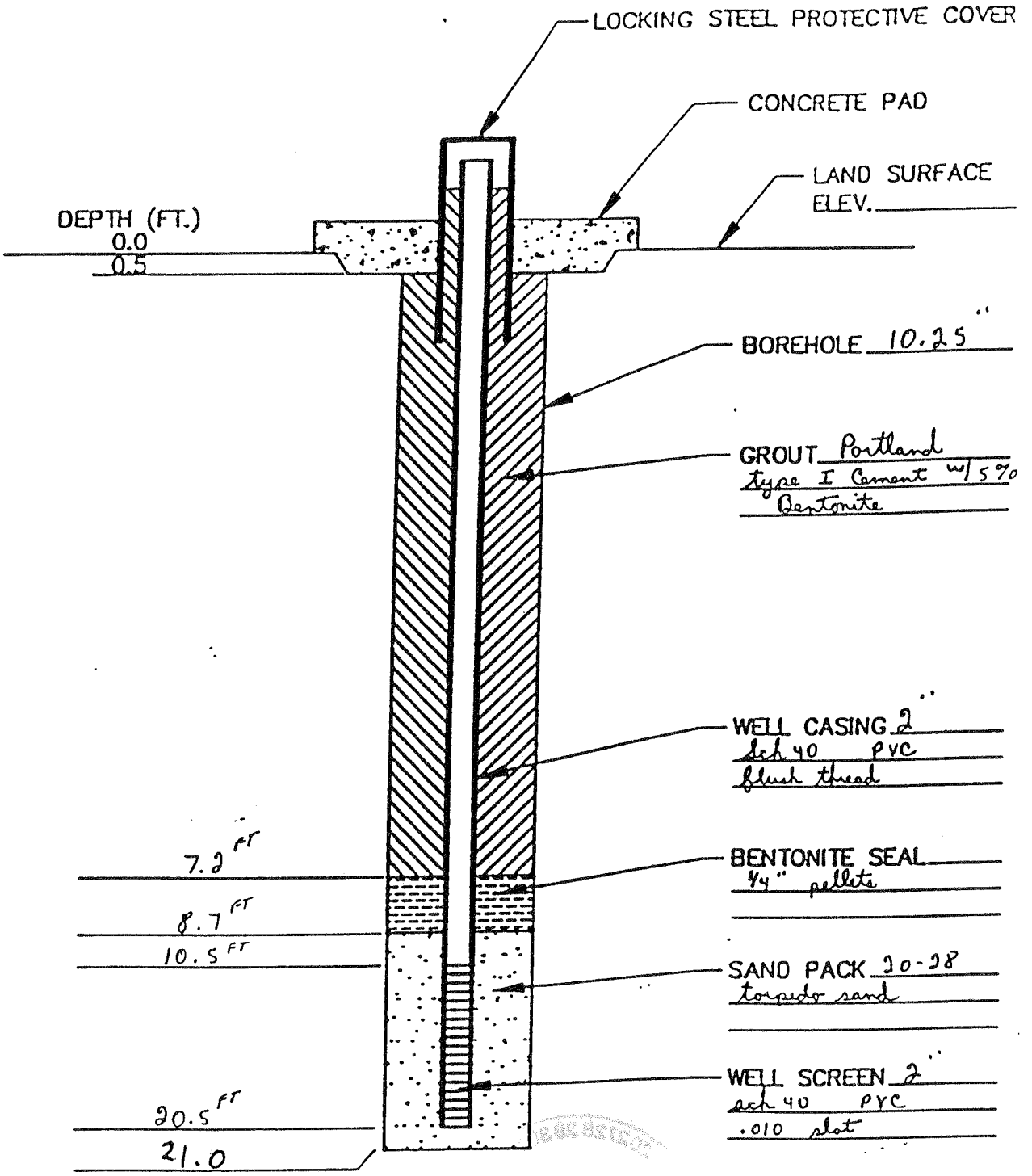
	Depth From	Depth To	Size	Material
	8.7	21.0 Ft.	20-28	torpedo sand
		Ft.		

LOCATION SKETCH
(Show direction and distance from at least two State Road or other map reference points)
See attached drawings and location map.

14. REMARKS: Wells were installed thru. 6 1/4 I.D. HSA 10 1/4 O.D.

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Floyd C Coy — 7-6-89
SIGNATURE OF CONTRACTOR OR AGENT — DATE



WELL CONSTRUCTION DIAGRAM

Not To Scale

PROJECT Weyerhaeuser

PROJECT NO. 467.37

WELL NO. MW-5 DATE INSTALLED 6-20-89

DRILLING CONTRACTOR Law Engineering #332 N.C.

RMT GEOLOGIST Dan Mc Donnell

RMT

FIGURE 2

PF Code: T

Site: MW-01

△ = BOD

▽ = COD

□ = TOC

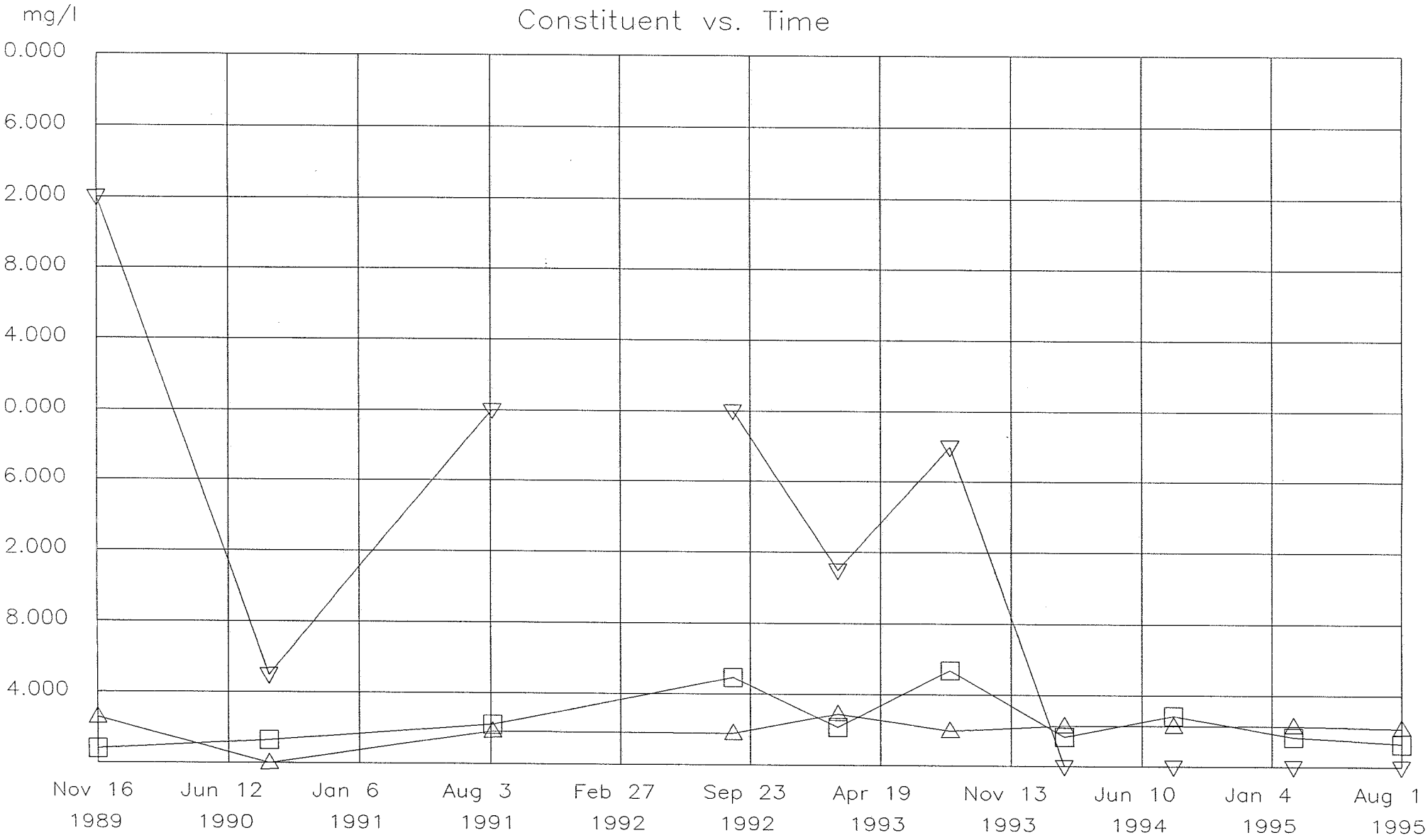


FIGURE 3

PF Code: T

Site: MW-01

△ = Copper

▽ = Barium

□ = Fluoride

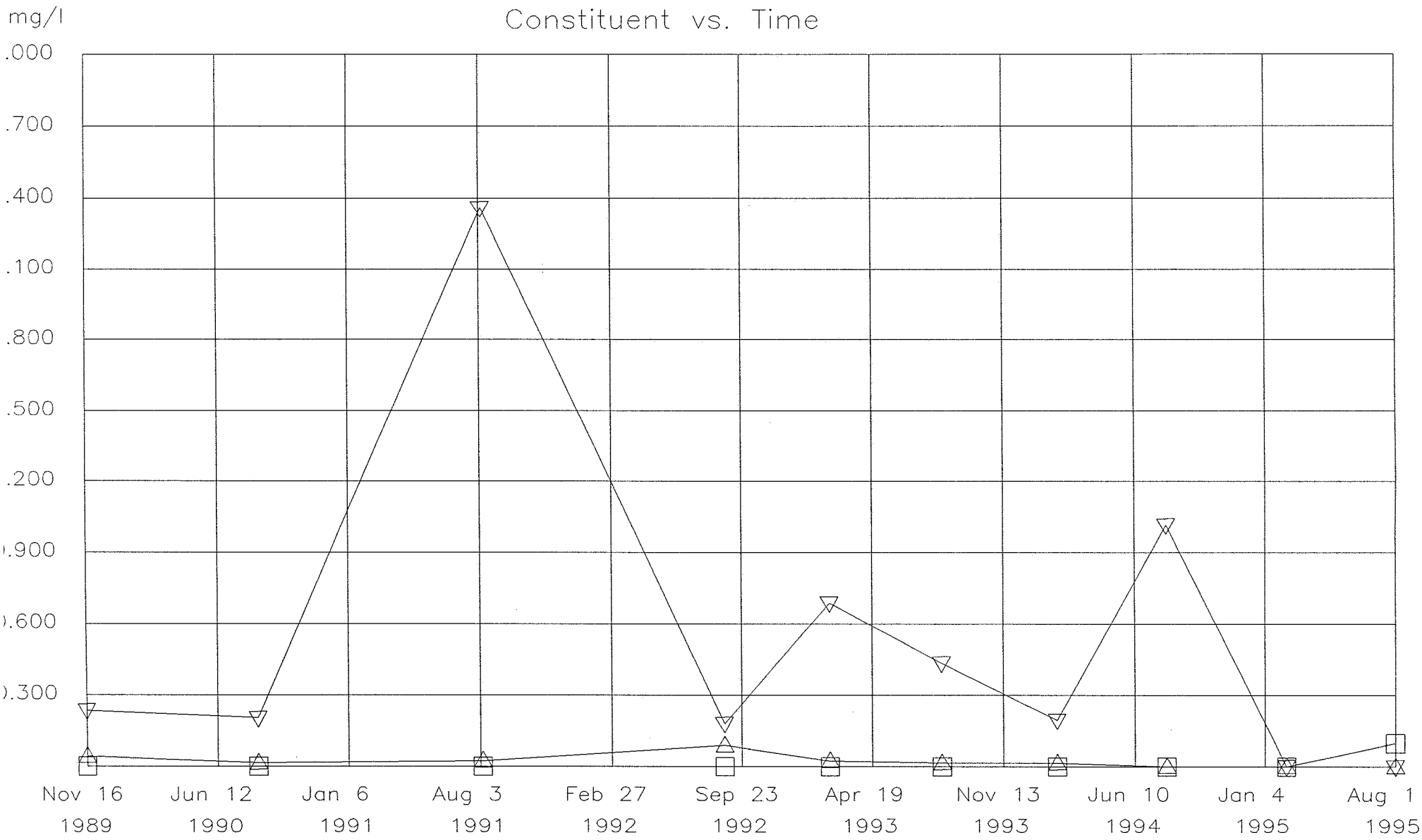


FIGURE 4

PF Code: T

Site: MW-01

△ = Residue, filterable

▽ = Sulfate

□ = Chloride

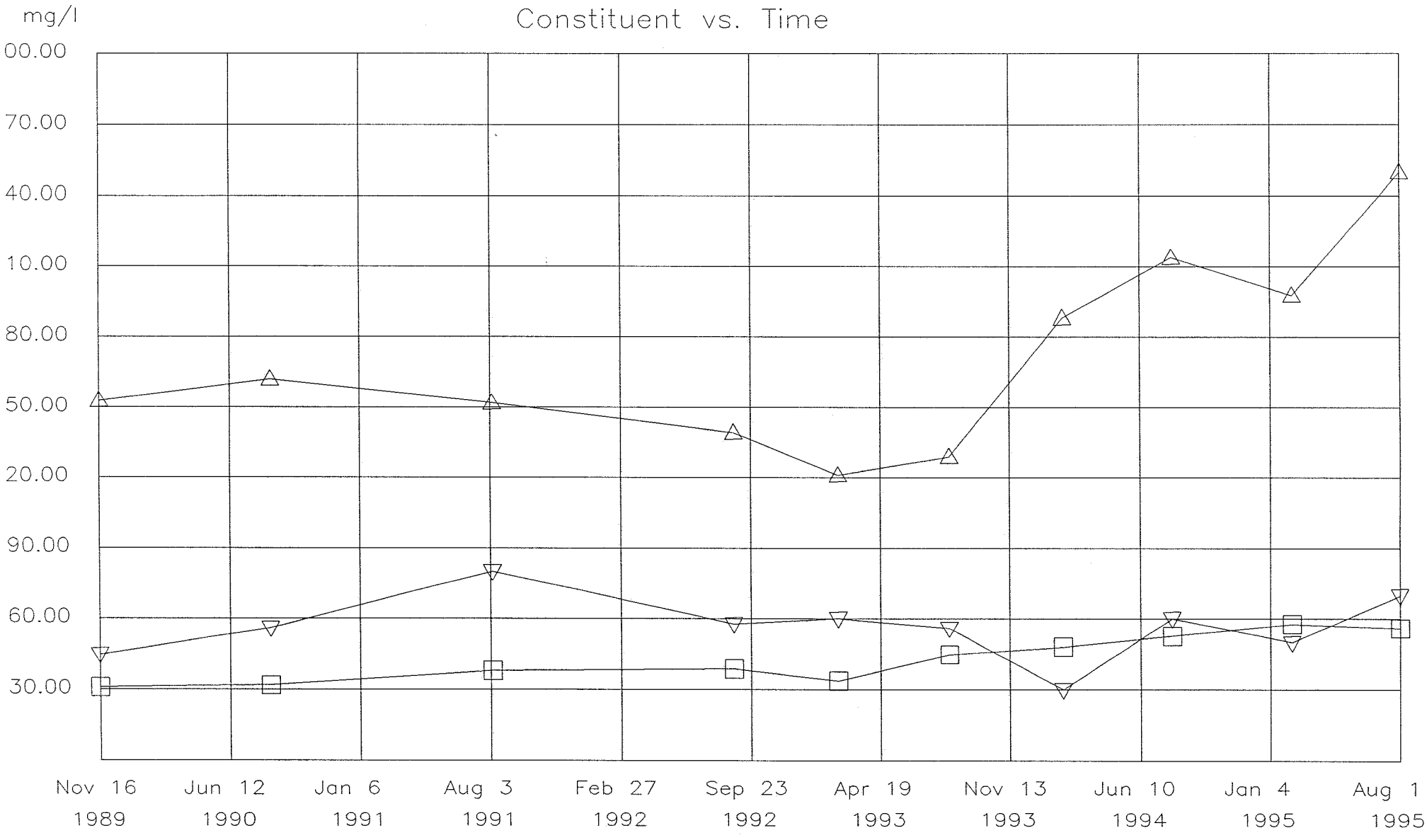


FIGURE 5

PF Code: T

Site: MW-01

△ = pH

Constituent vs. Time

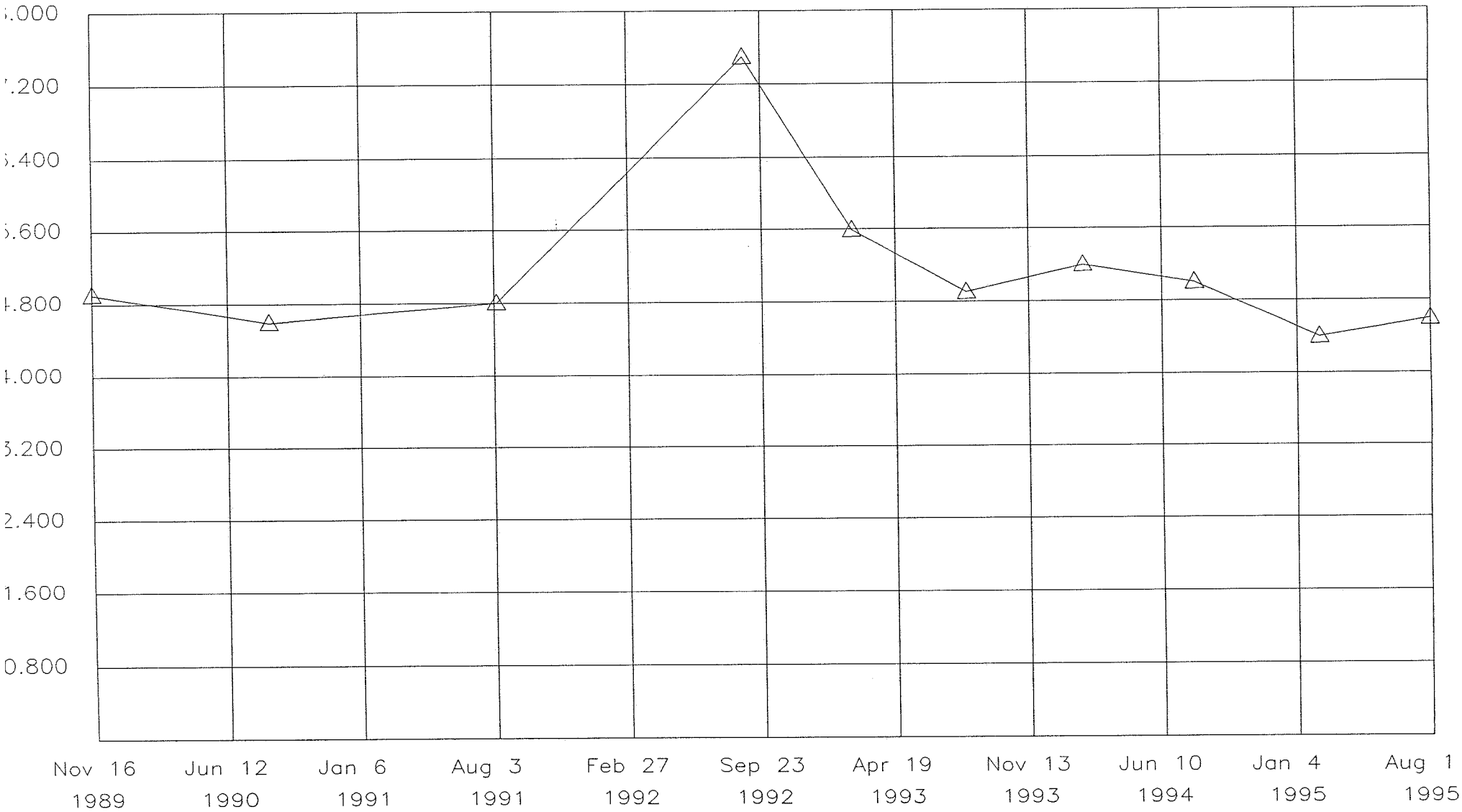


FIGURE 6

PF Code: T

Site: MW-01

△ = Lead
▽ = Iron
□ = Manganese
○ = Zinc

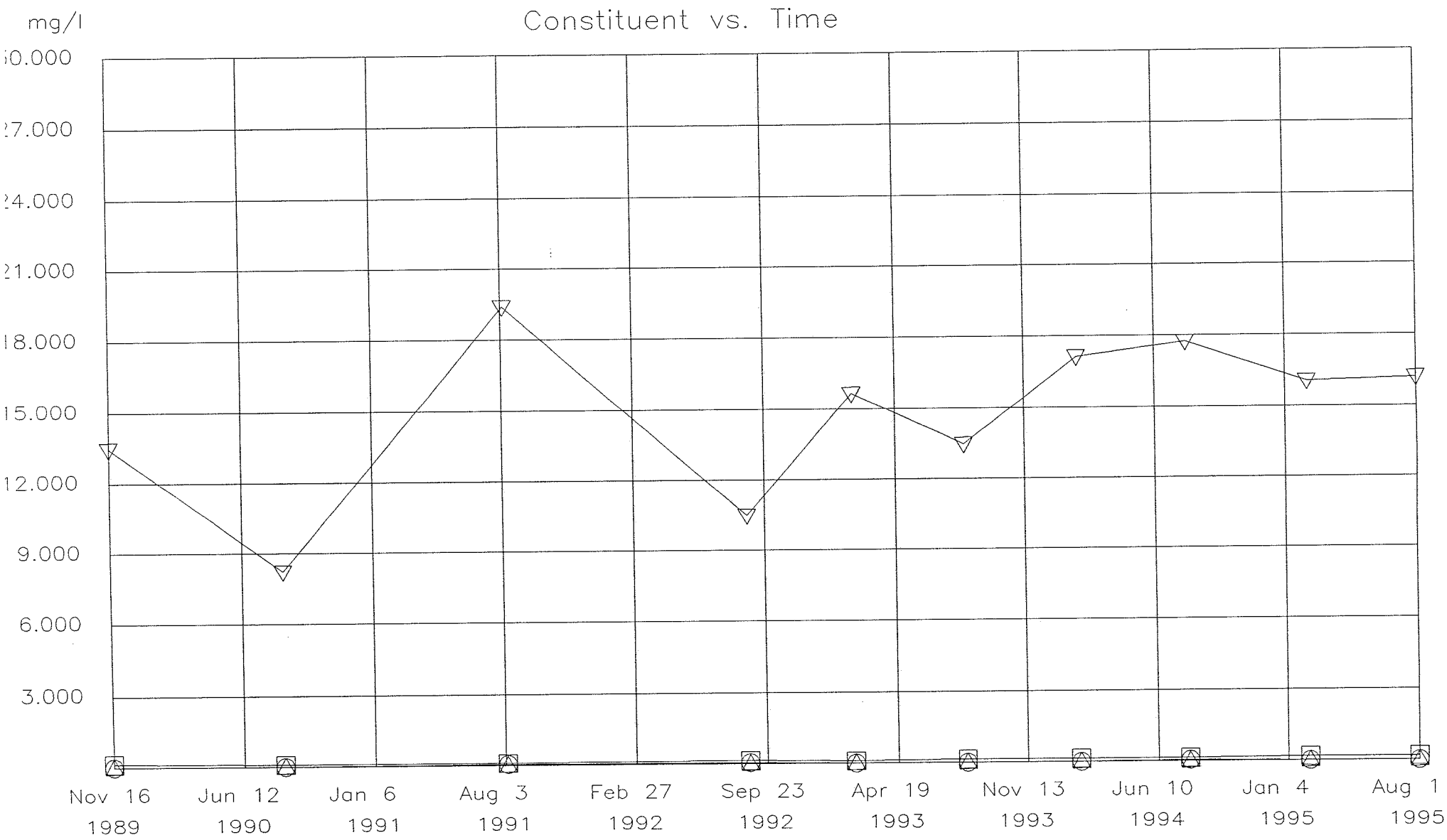


FIGURE 7

PF Code: T

Site: MW-02

△ = Nitrate (as N)

▽ = Total Organic Halides

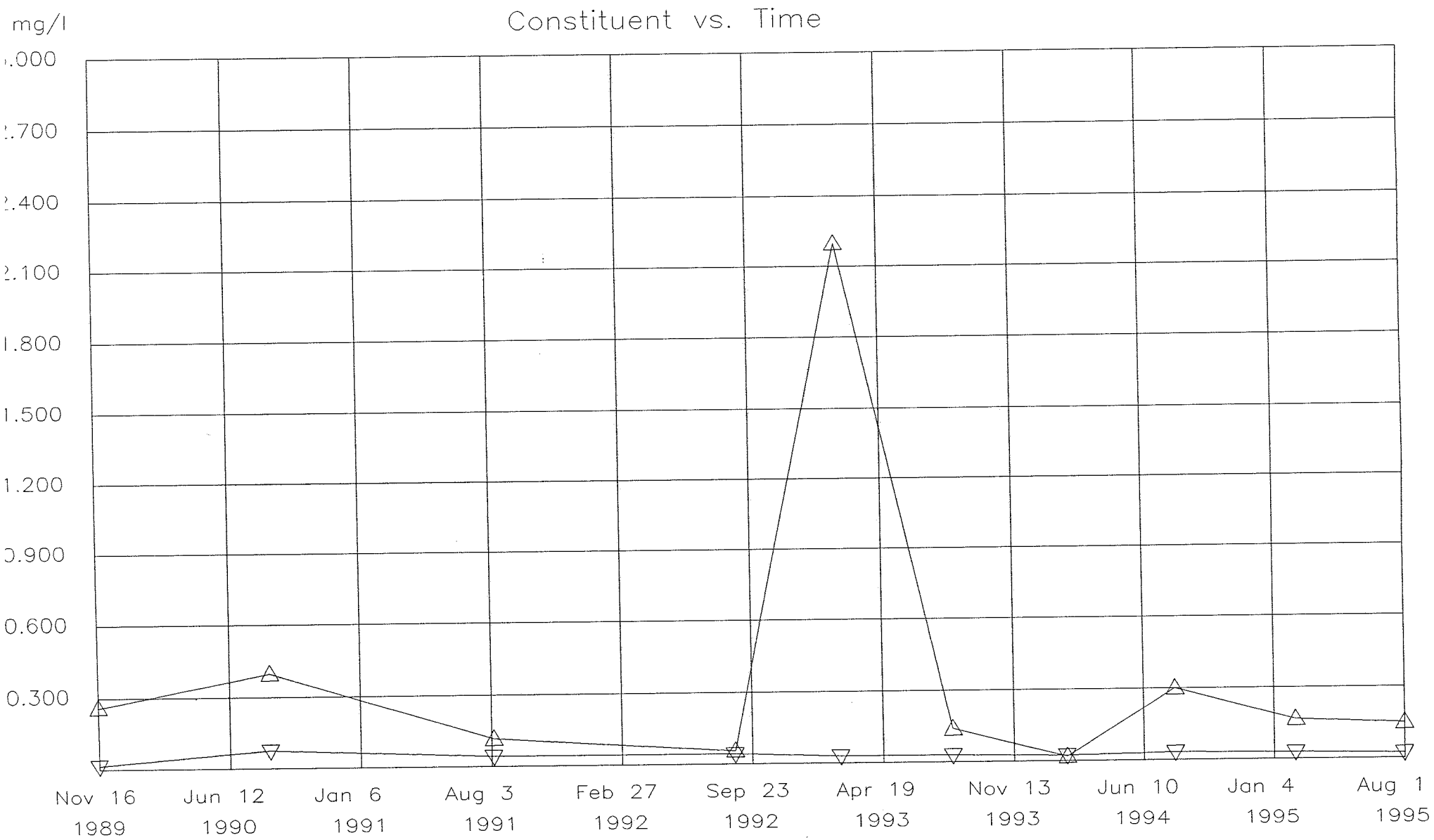


FIGURE 8

PF Code: T

Site: MW-02

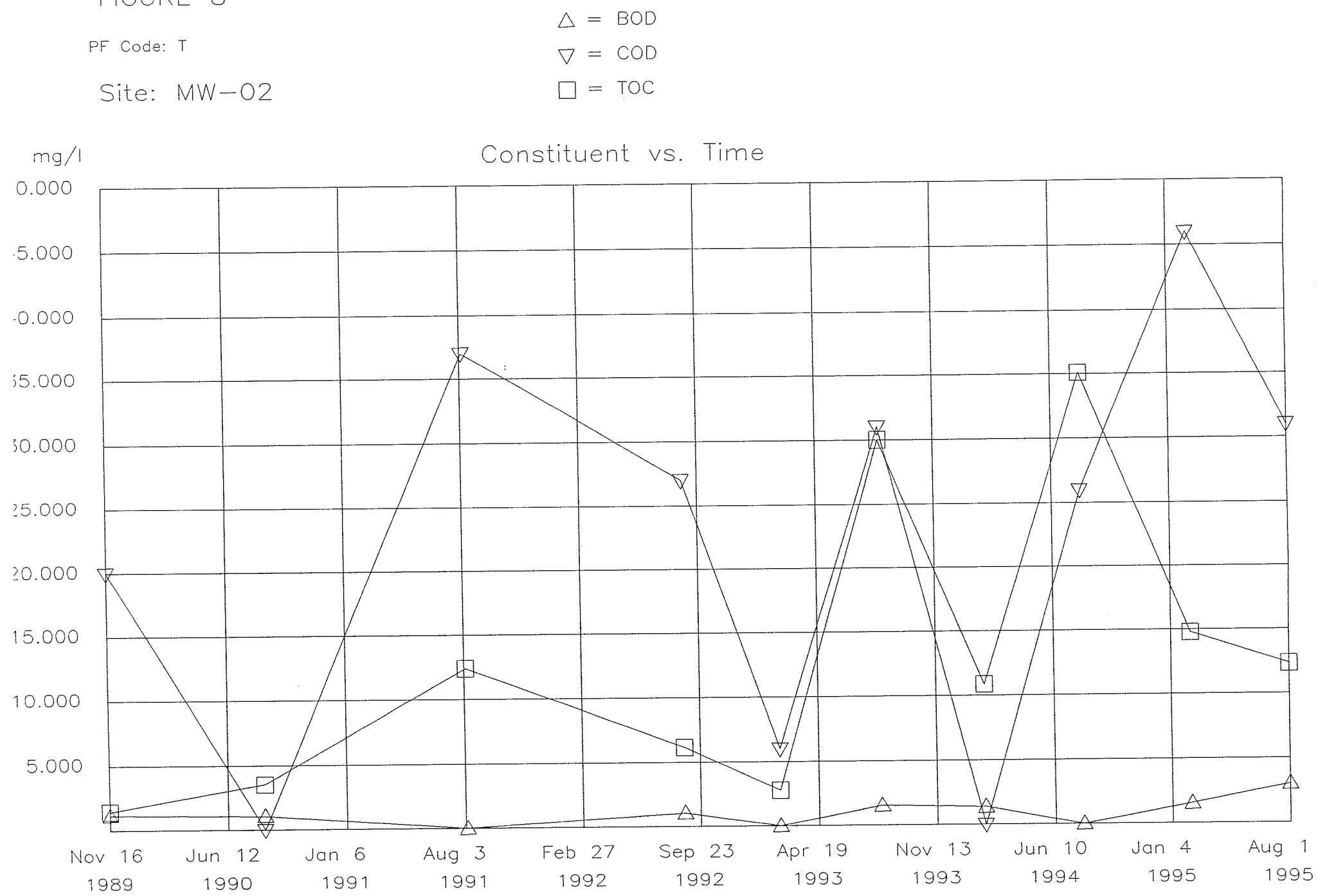


FIGURE 9

PF Code: T

Site: MW-02

△ = Copper

▽ = Barium

□ = Fluoride

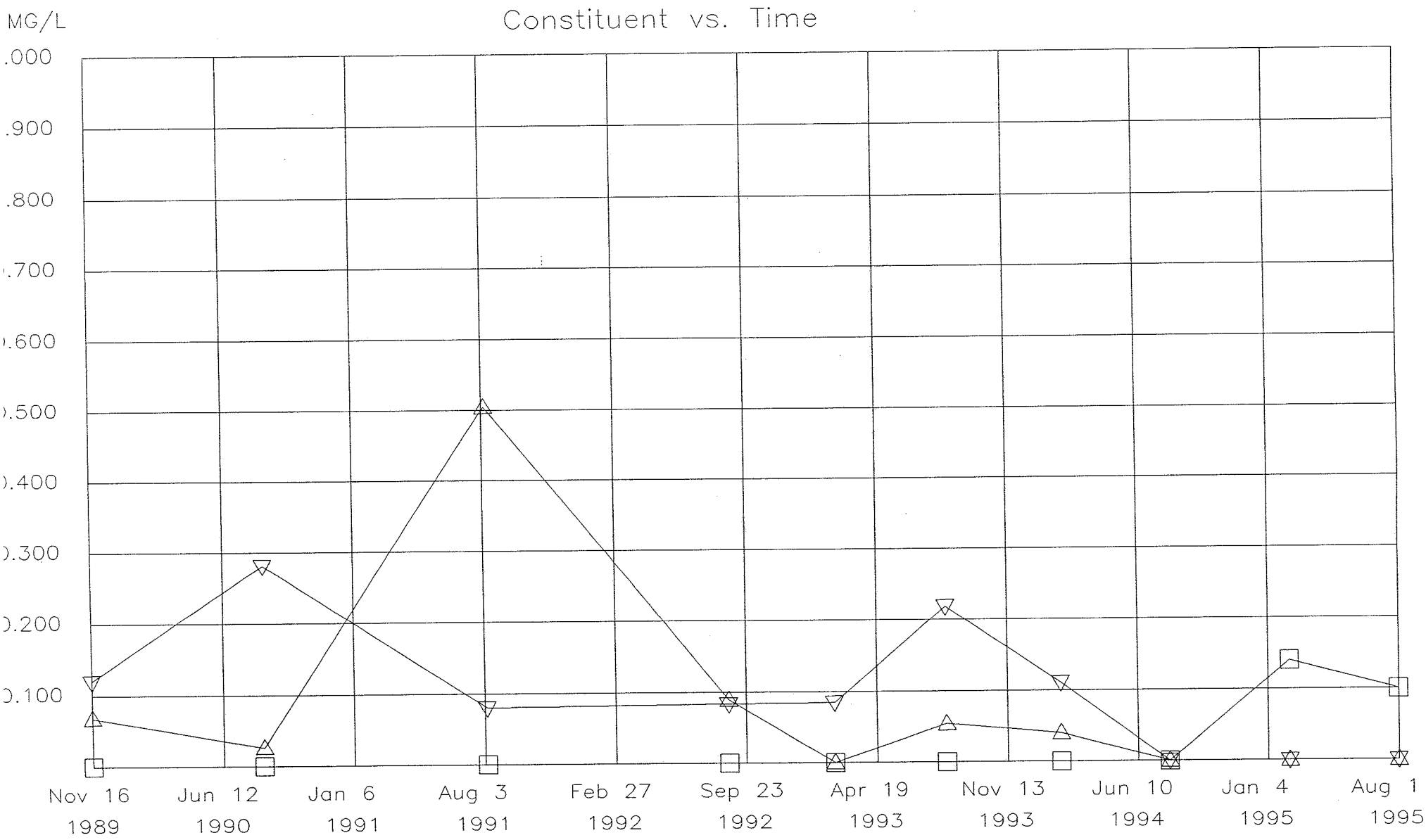


FIGURE 10

PF Code: T

Site: MW-02

△ = Residue, filterable

▽ = Sulfate

□ = Chloride

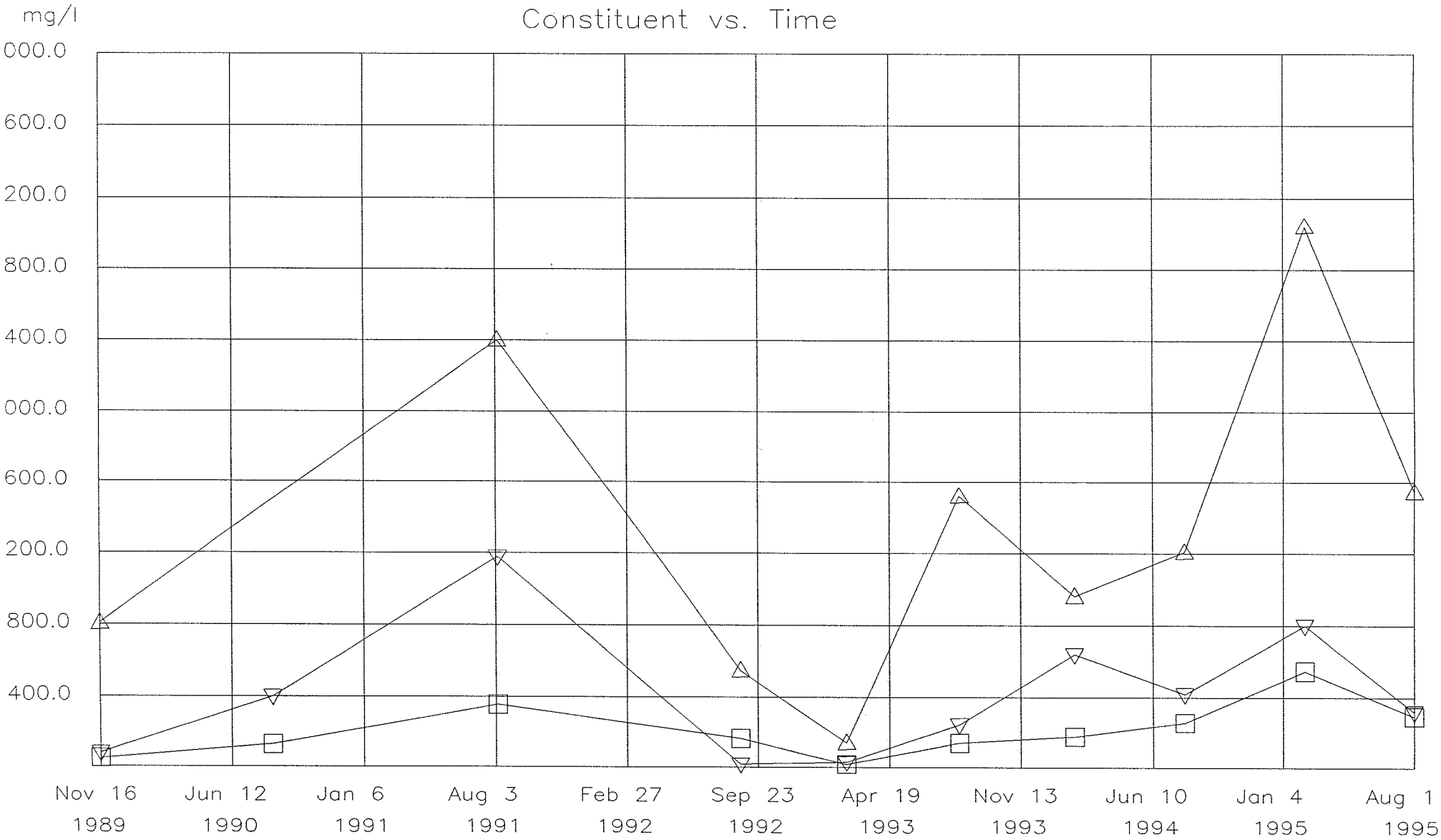


FIGURE 11

PF Code: T

Site: MW-02

△ = pH

Constituent vs. Time

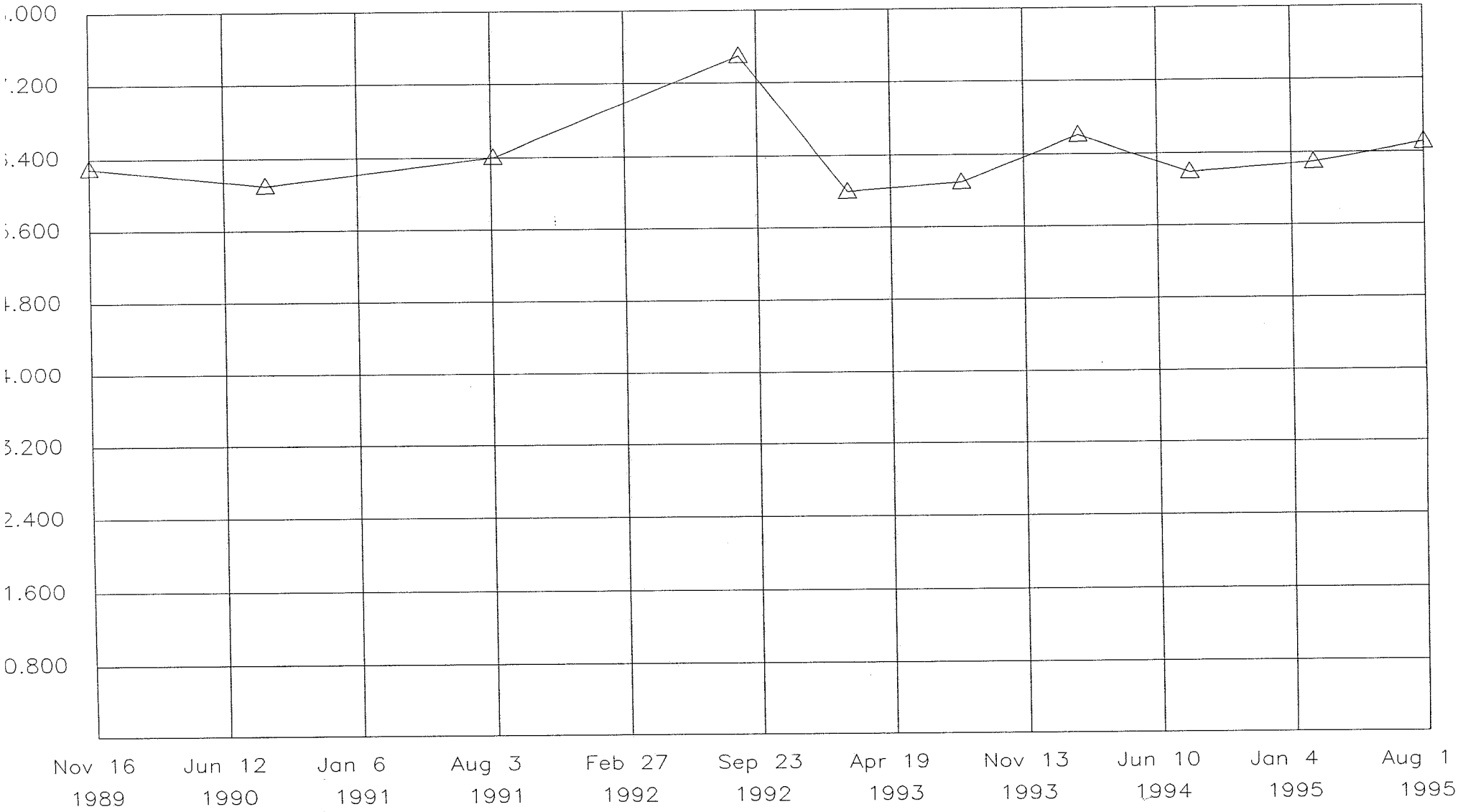


FIGURE 12

PF Code: T

Site: MW-02

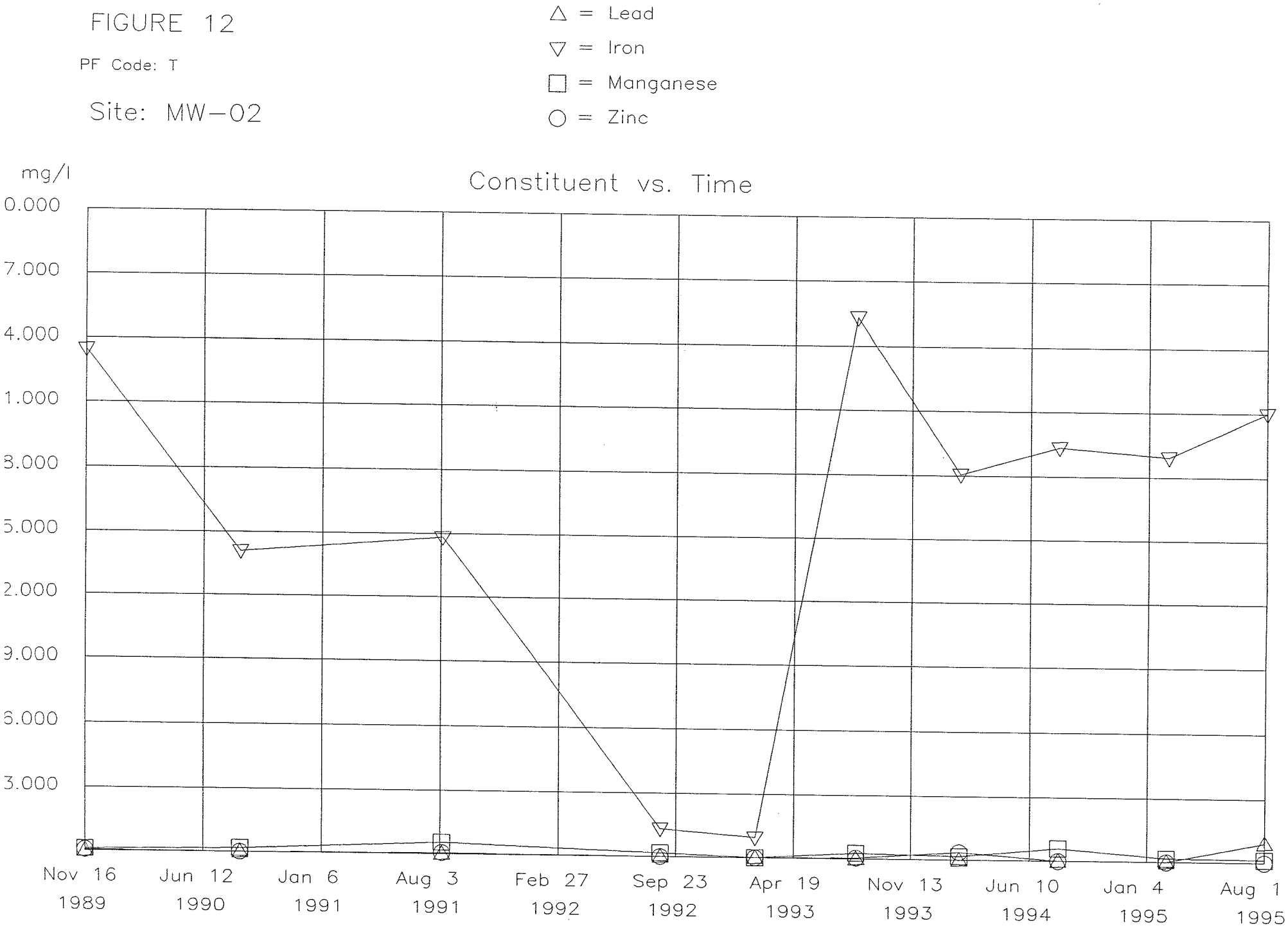


FIGURE 13

PF Code: T

Site: MW-03

△ = Nitrate (as N)

▽ = Total Organic Halides

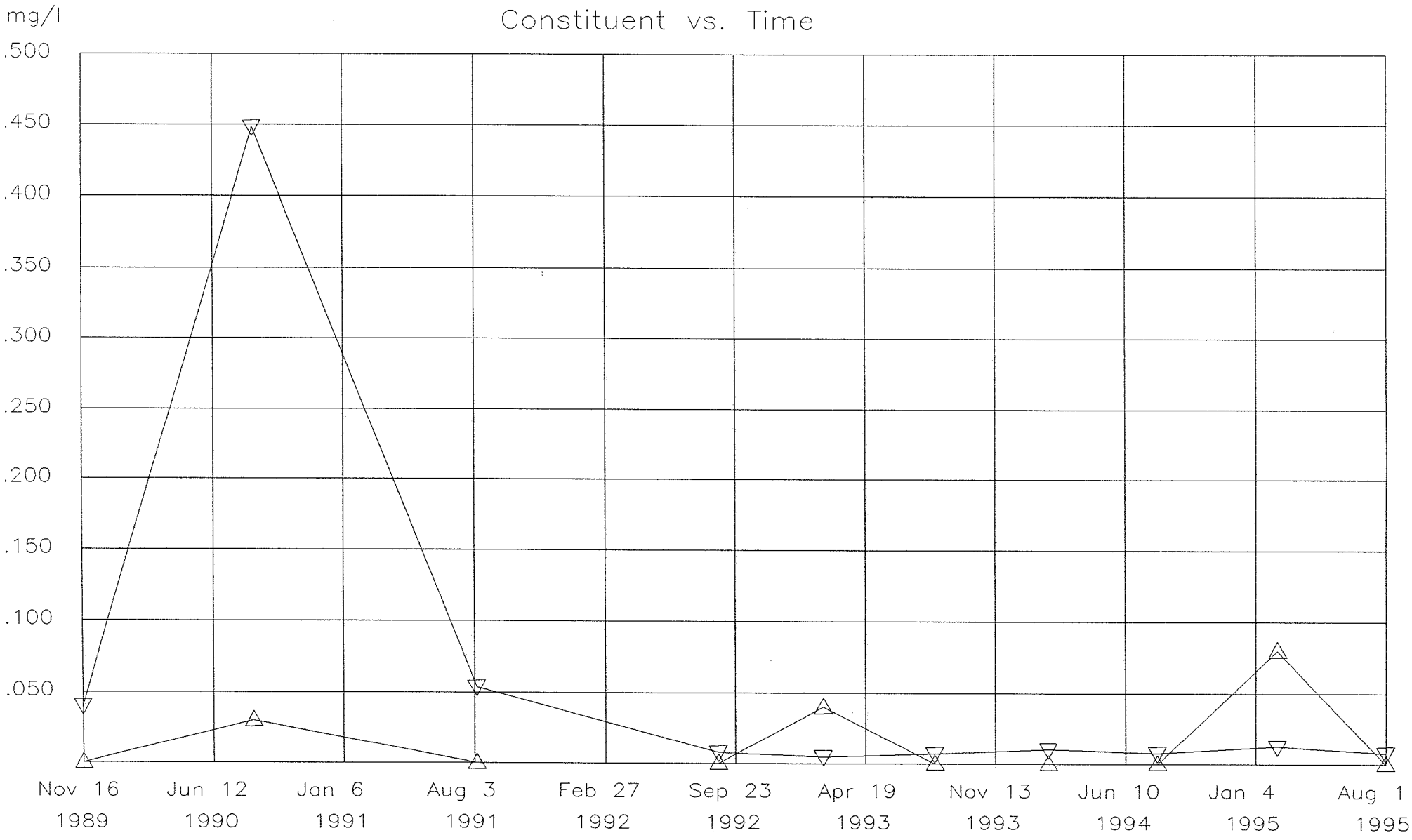


FIGURE 14

PF Code: T

Site: MW-03

△ = BOD

▽ = COD

□ = TOC

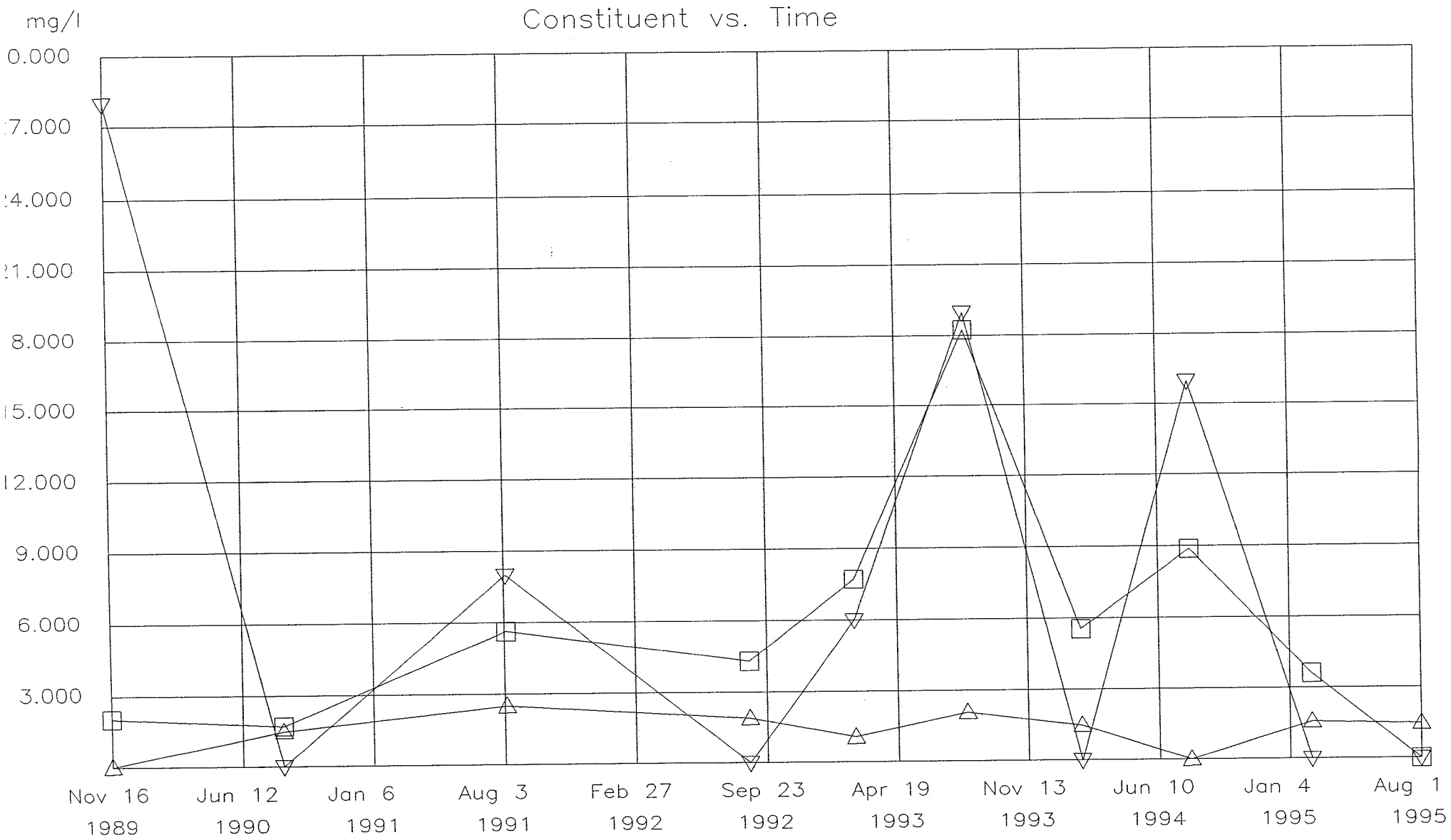


FIGURE 15

PF Code: T

Site: MW-03

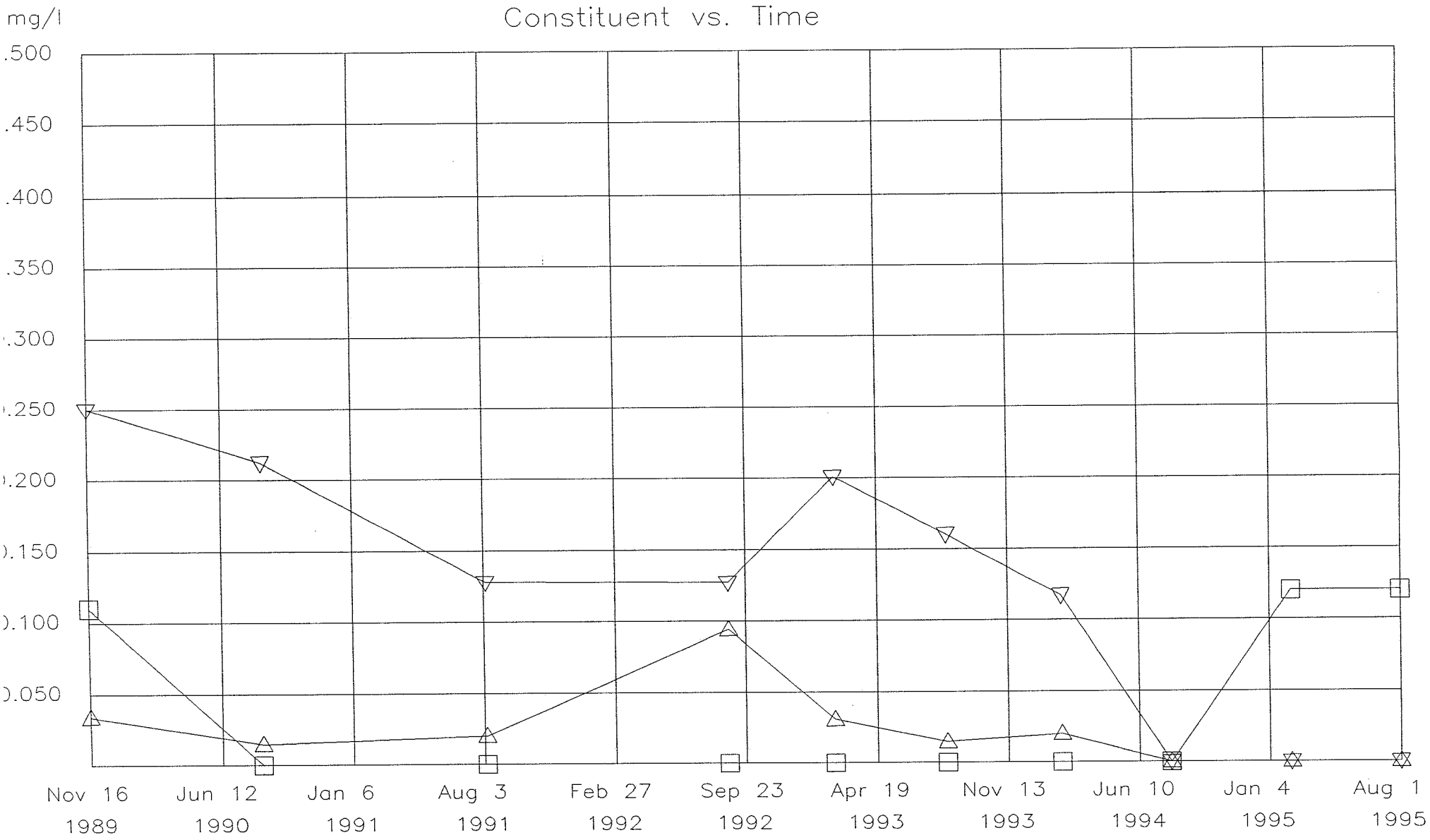


FIGURE 16

PF Code: T

Site: MW-03

△ = Residue, filterable

▽ = Sulfate

□ = Chloride

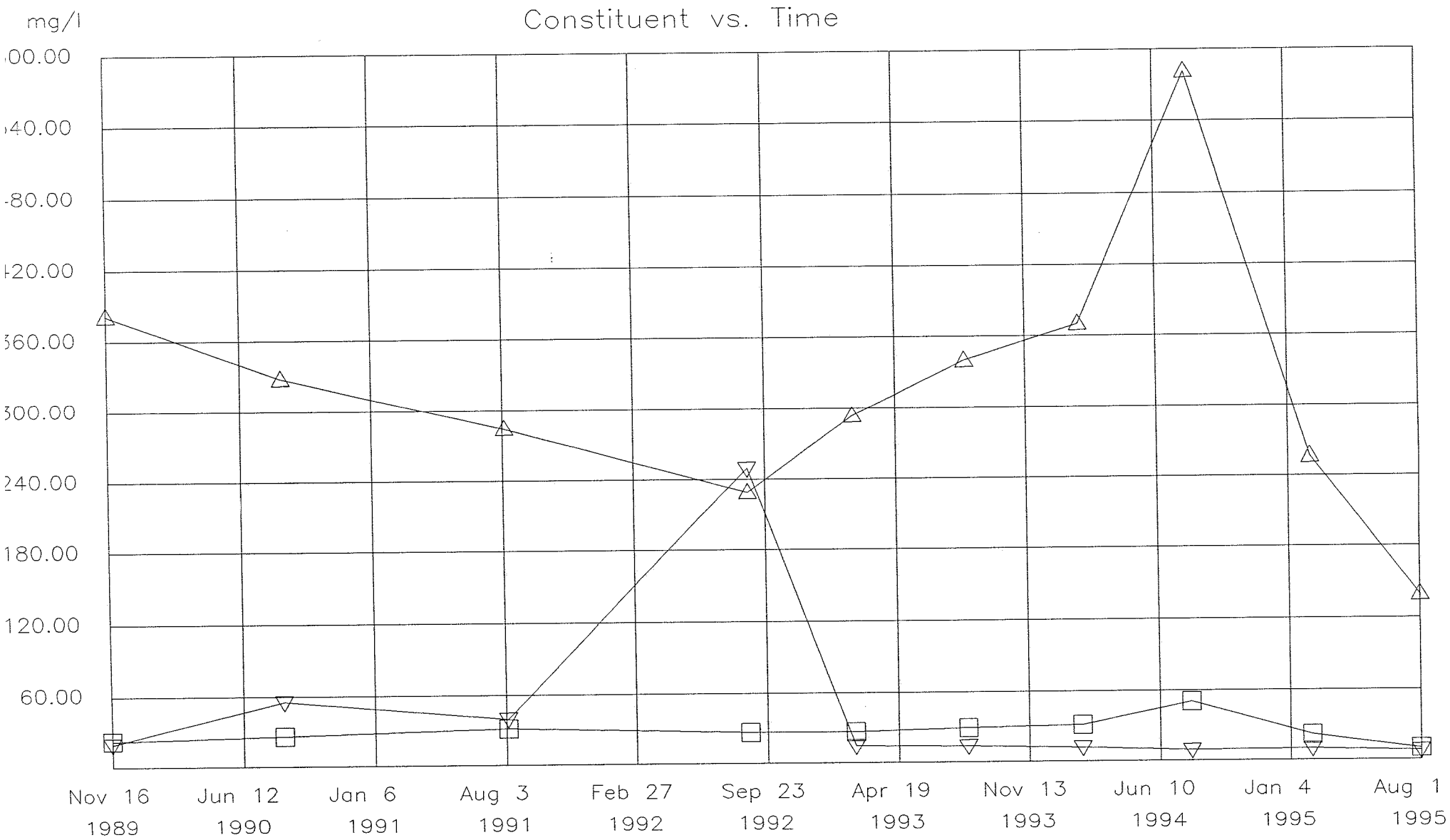


FIGURE 17

PF Code: T

Site: MW-03

△ = pH

Constituent vs. Time

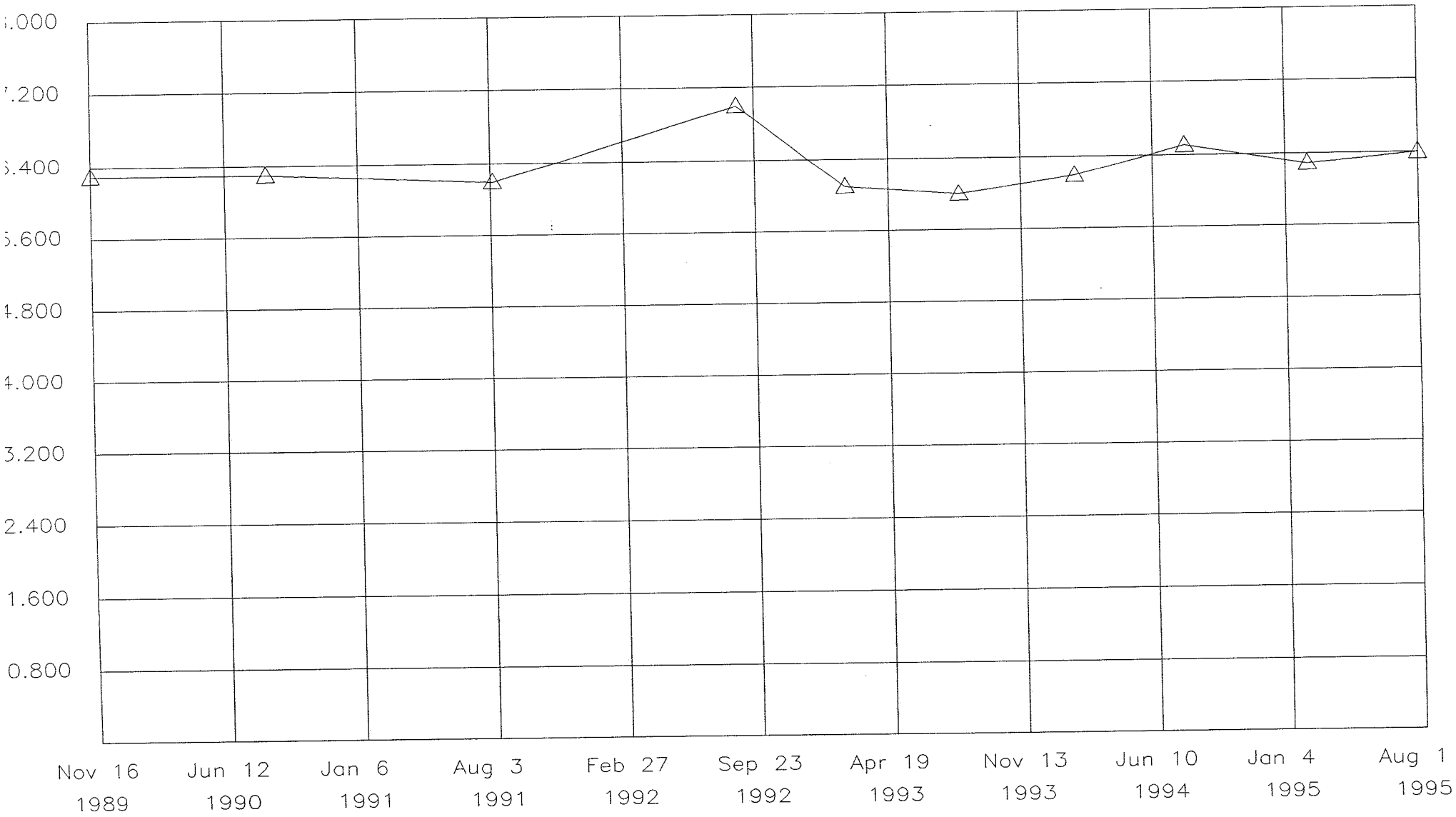


FIGURE 18

PF Code: T

Site: MW-03

△ = Lead
▽ = Iron
□ = Manganese
○ = Zinc

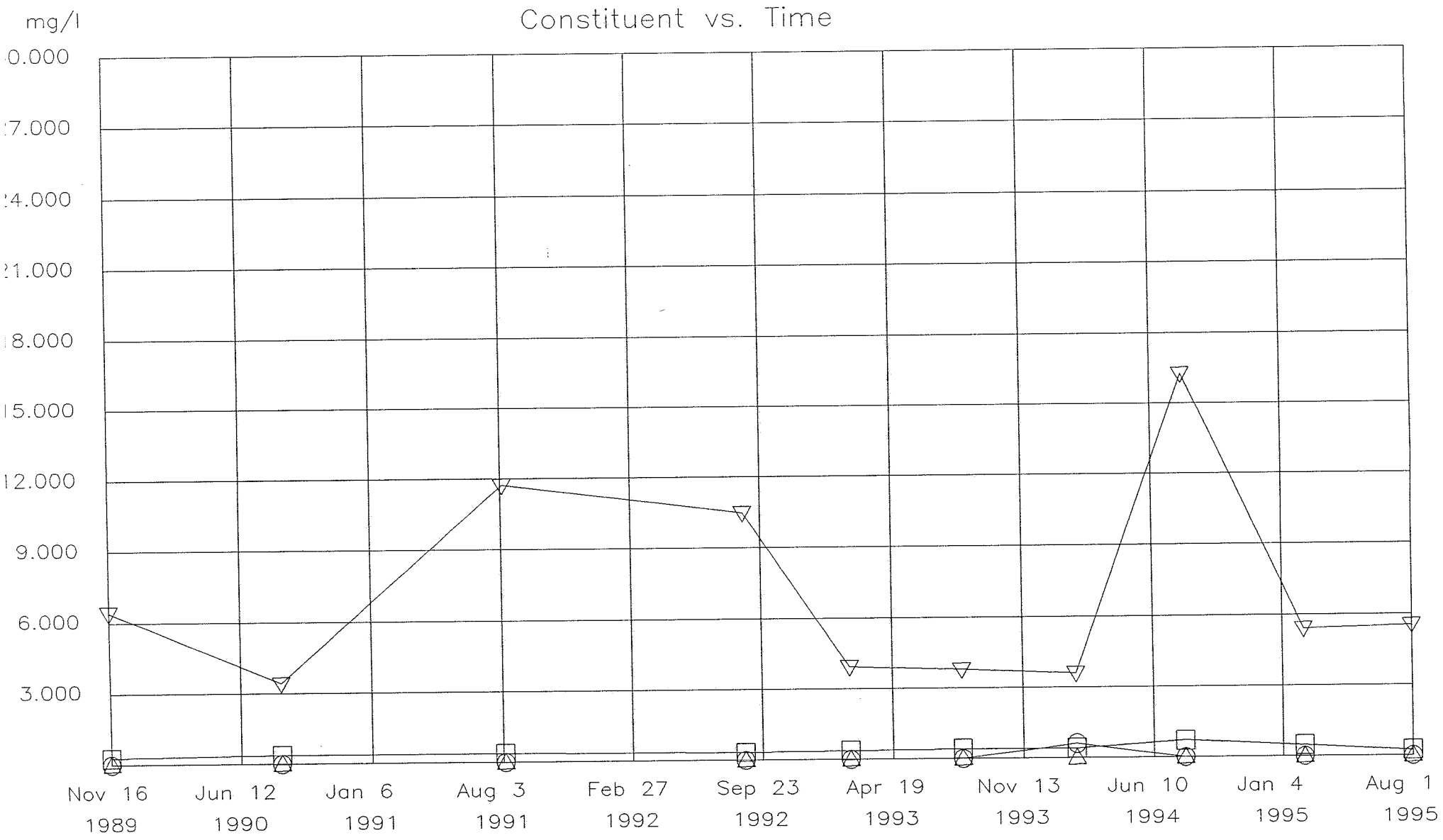


FIGURE 19

PF Code: T

Site: MW-04

△ = Nitrate (as N)

▽ = Total Organic Halides

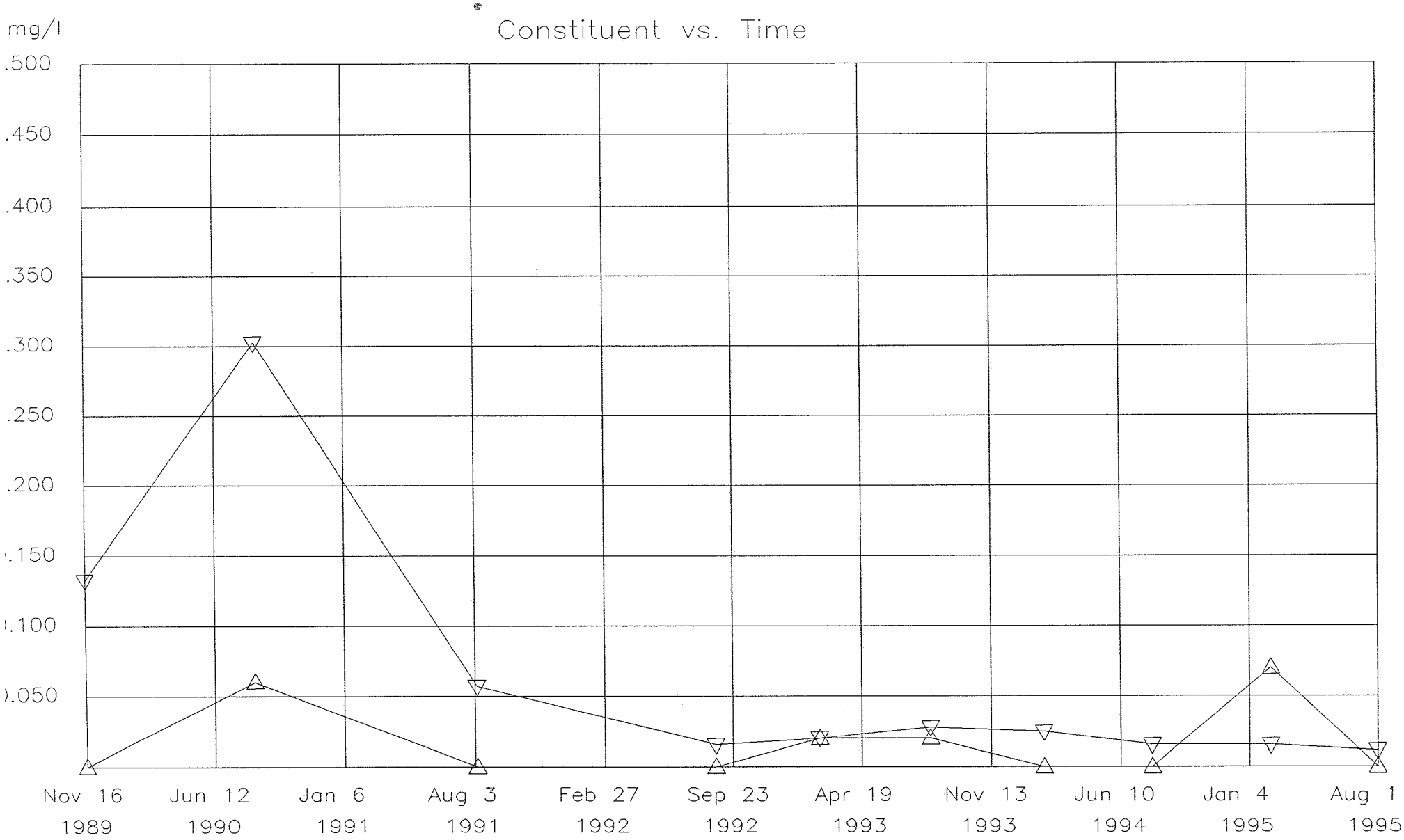


FIGURE 20

PF Code: T

Site: MW-04

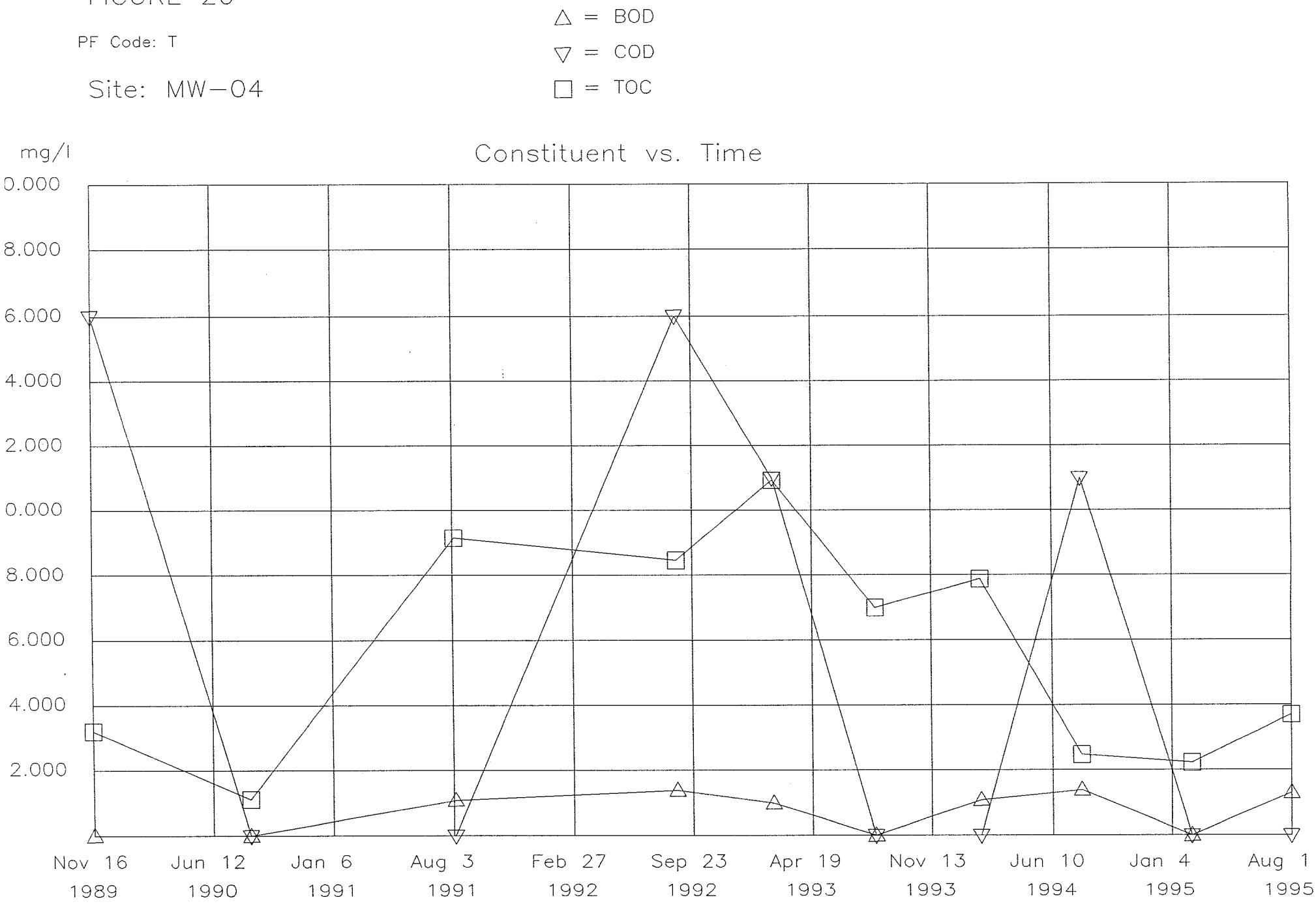


FIGURE 21

PF Code: T

Site: MW-04

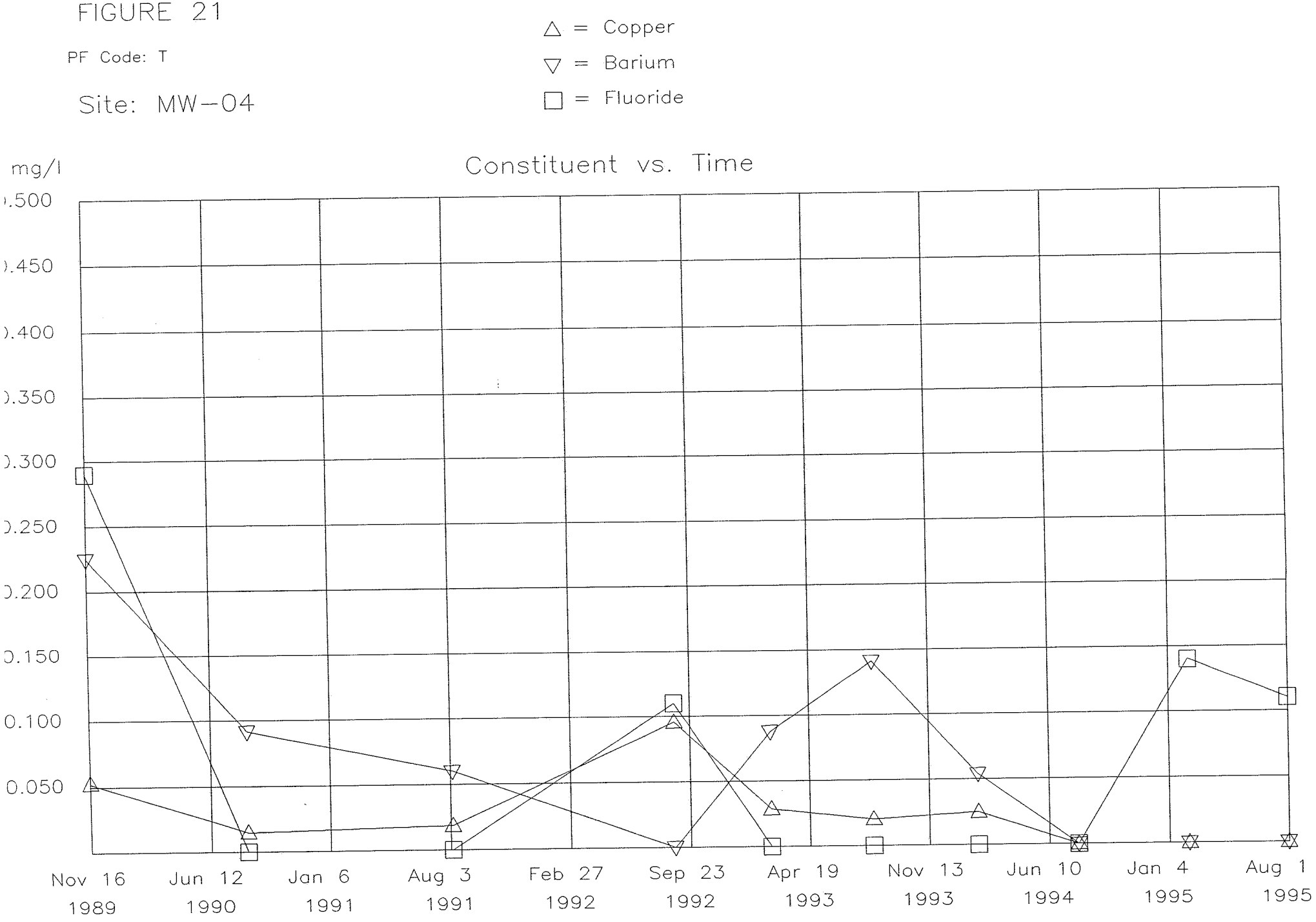


FIGURE 22

PF Code: T

Site: MW-04

△ = Residue, filterable

▽ = Sulfate

□ = Chloride

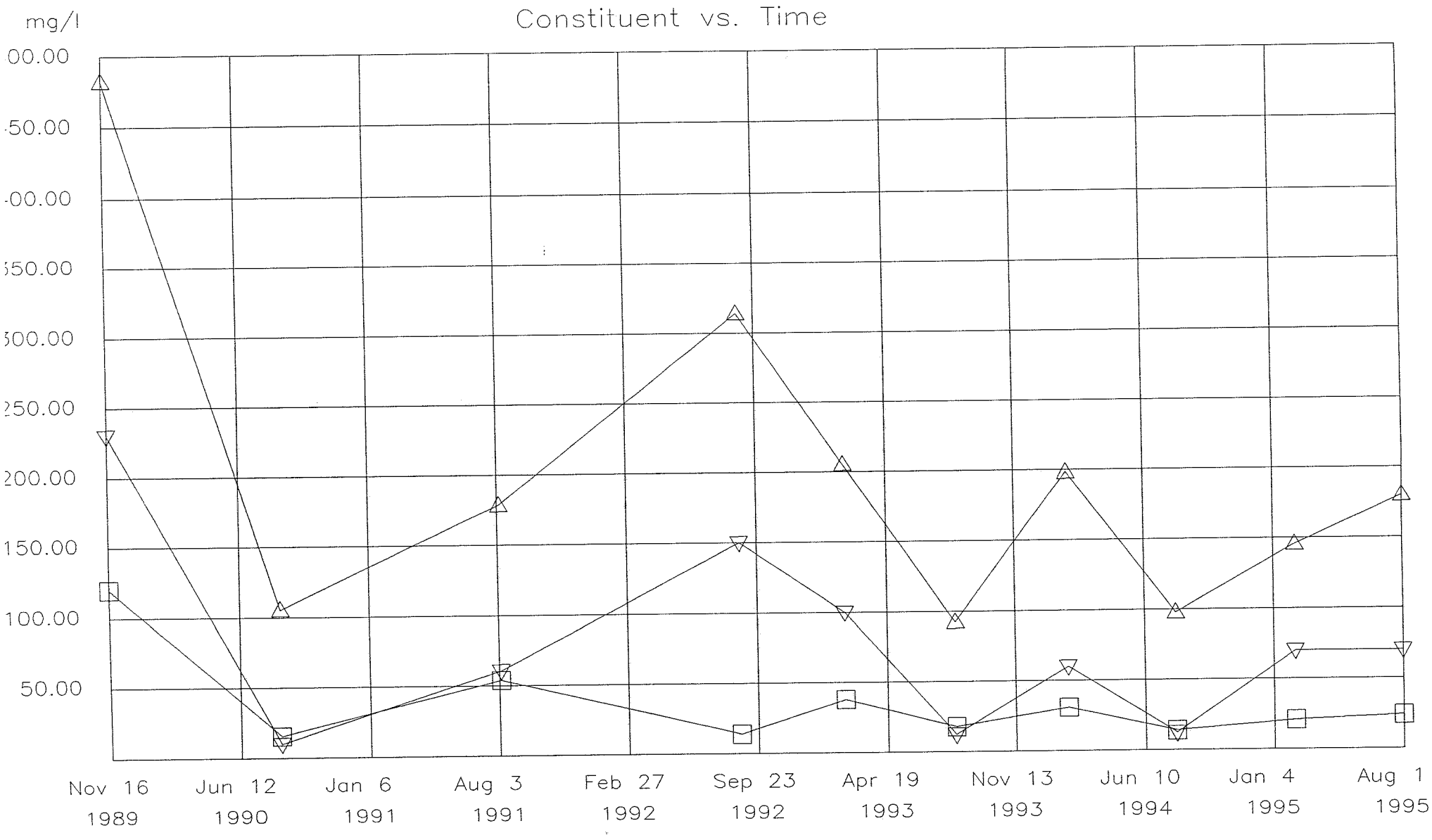


FIGURE 23

PF Code: T

Site: MW-04

△ = pH

Constituent vs. Time

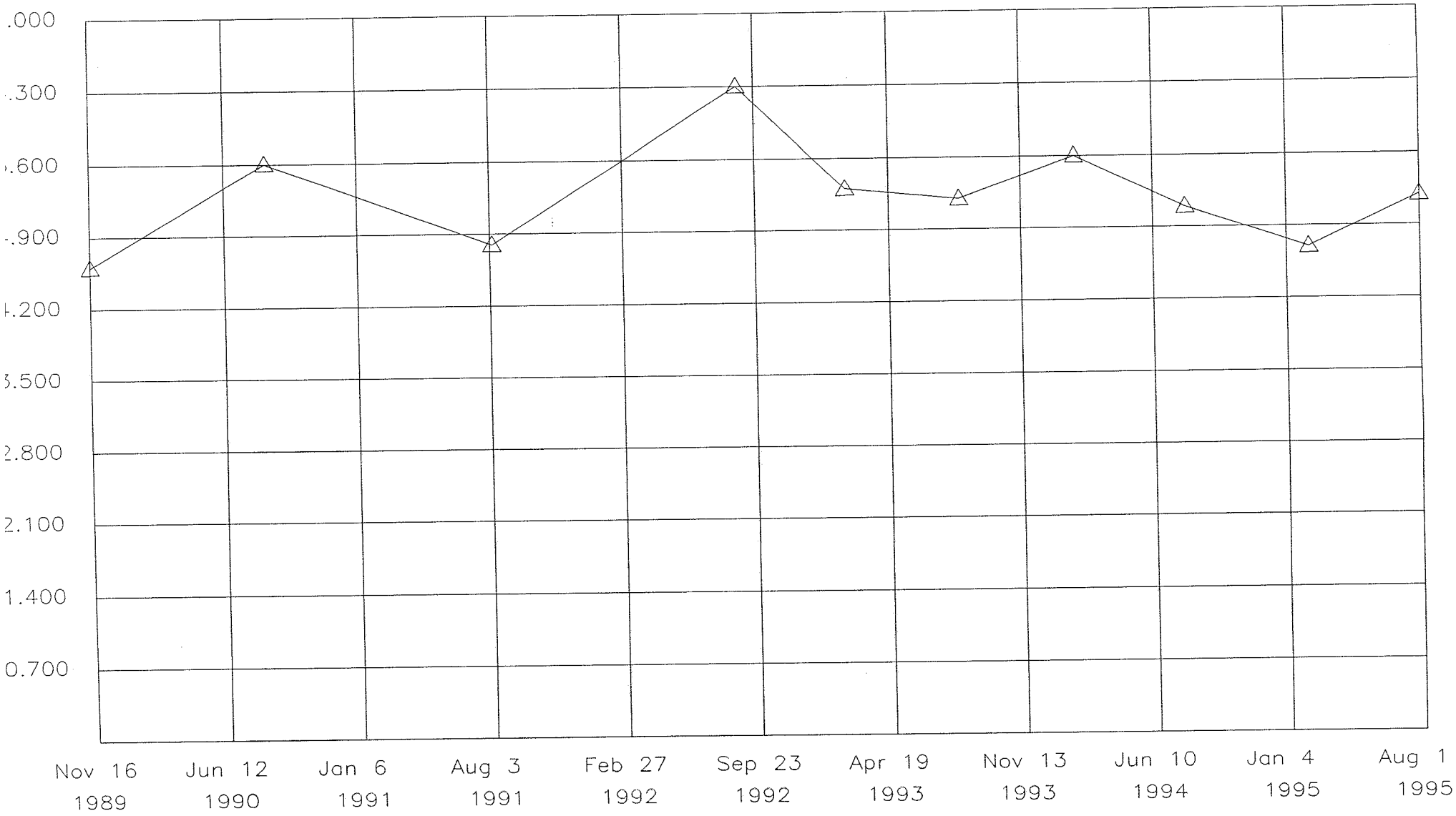


FIGURE 24

PF Code: T

Site: MW-04

△ = Lead
▽ = Iron
□ = Manganese
○ = Zinc

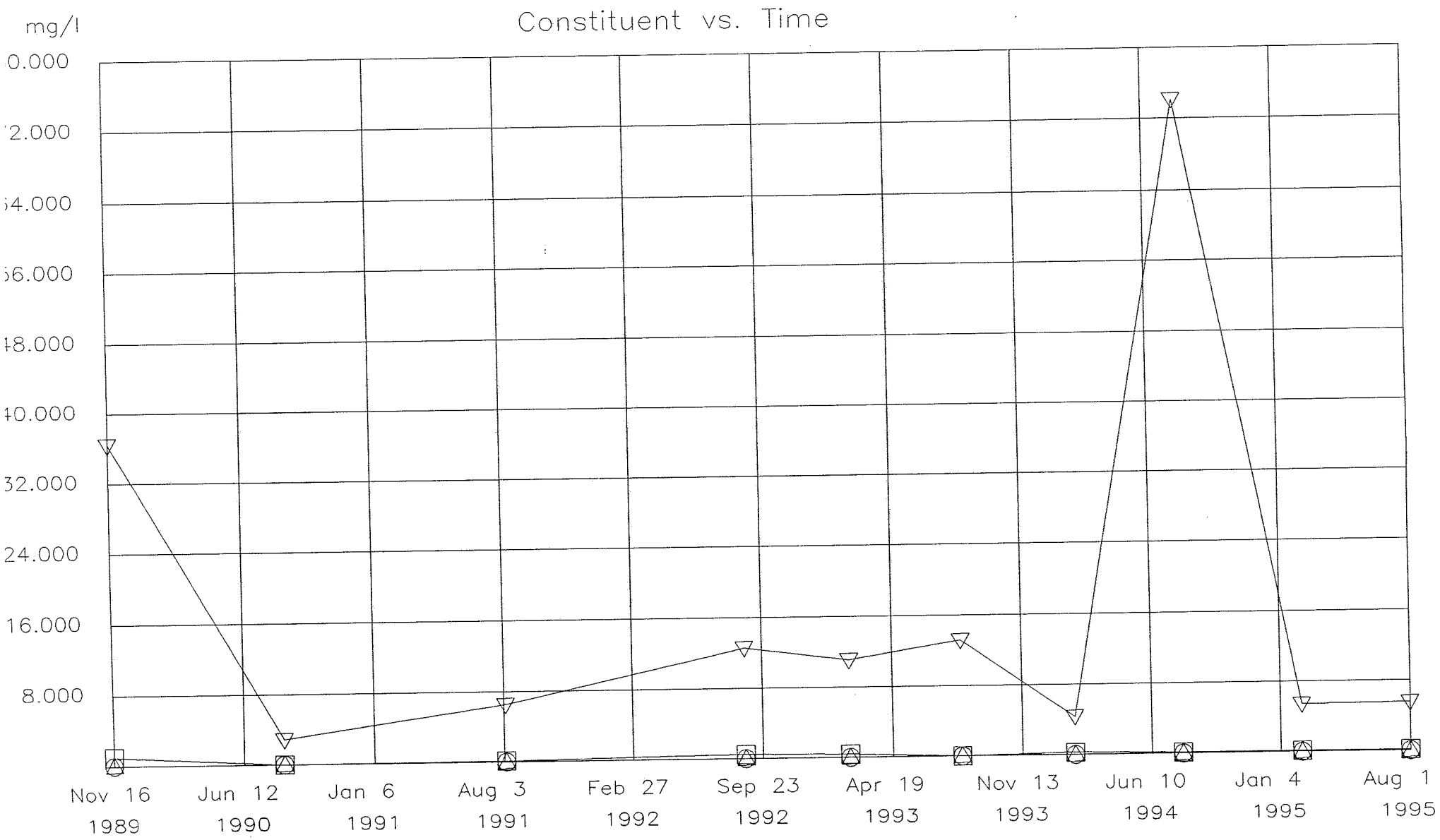


FIGURE 25

PF Code: T

Site: MW-05

△ = Nitrate (as N)

▽ = Total Organic Halides

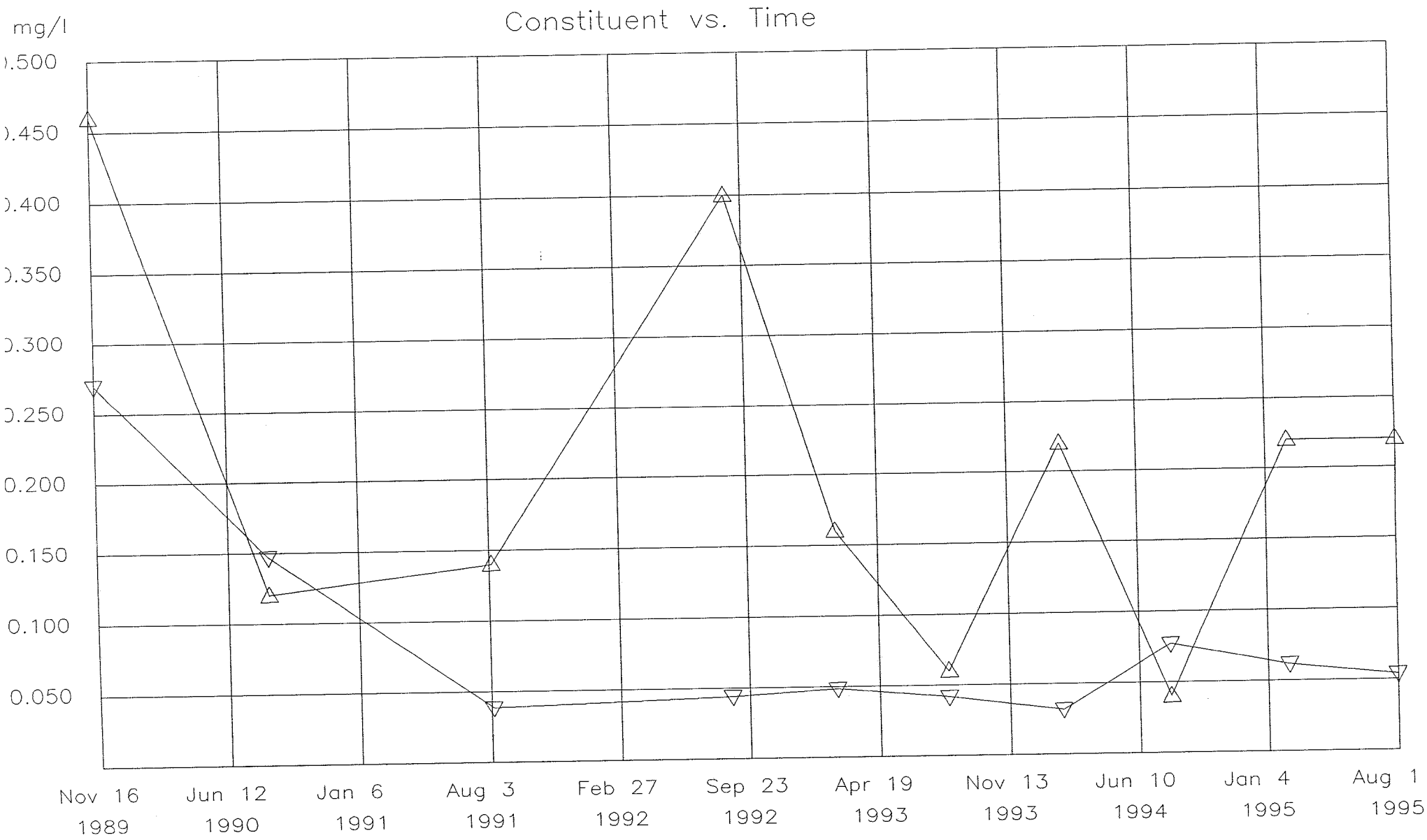


FIGURE 26

PF Code: T

Site: MW-05

△ = BOD

▽ = COD

□ = TOC

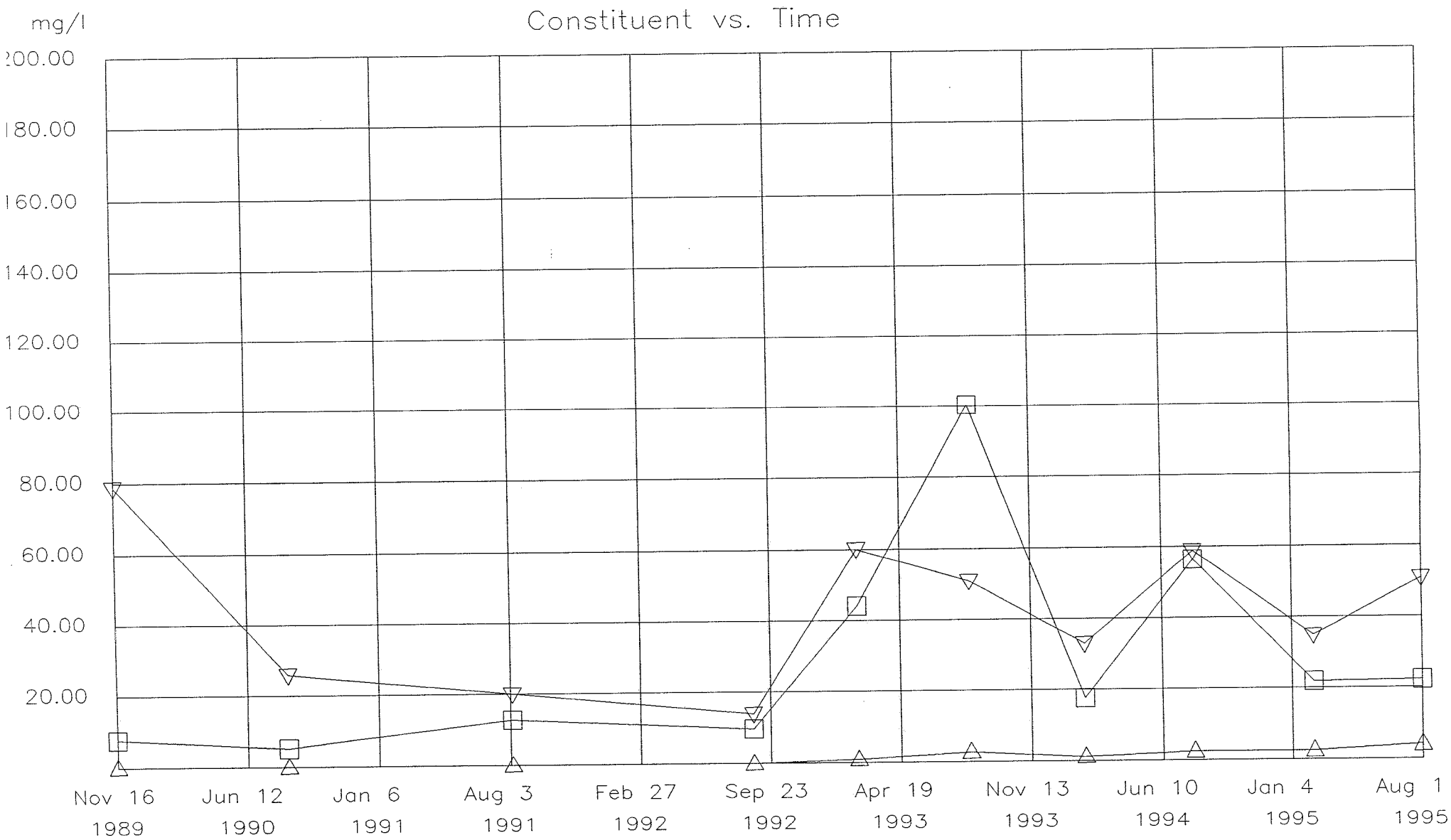


FIGURE 27

PF Code: T

Site: MW-05

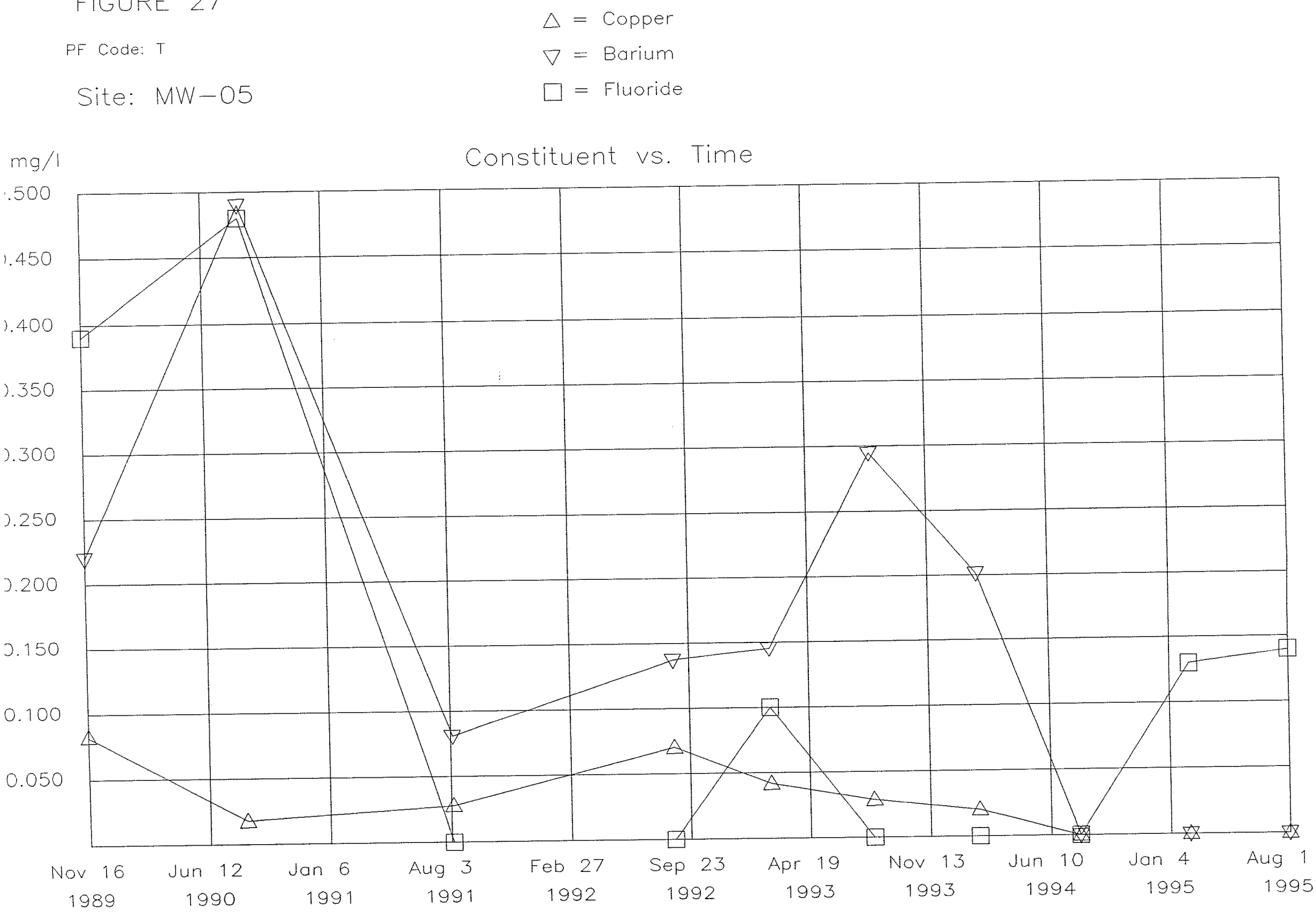


FIGURE 28

PF Code: T

Site: MW-05

△ = Residue, filterable

▽ = Sulfate

□ = Chloride

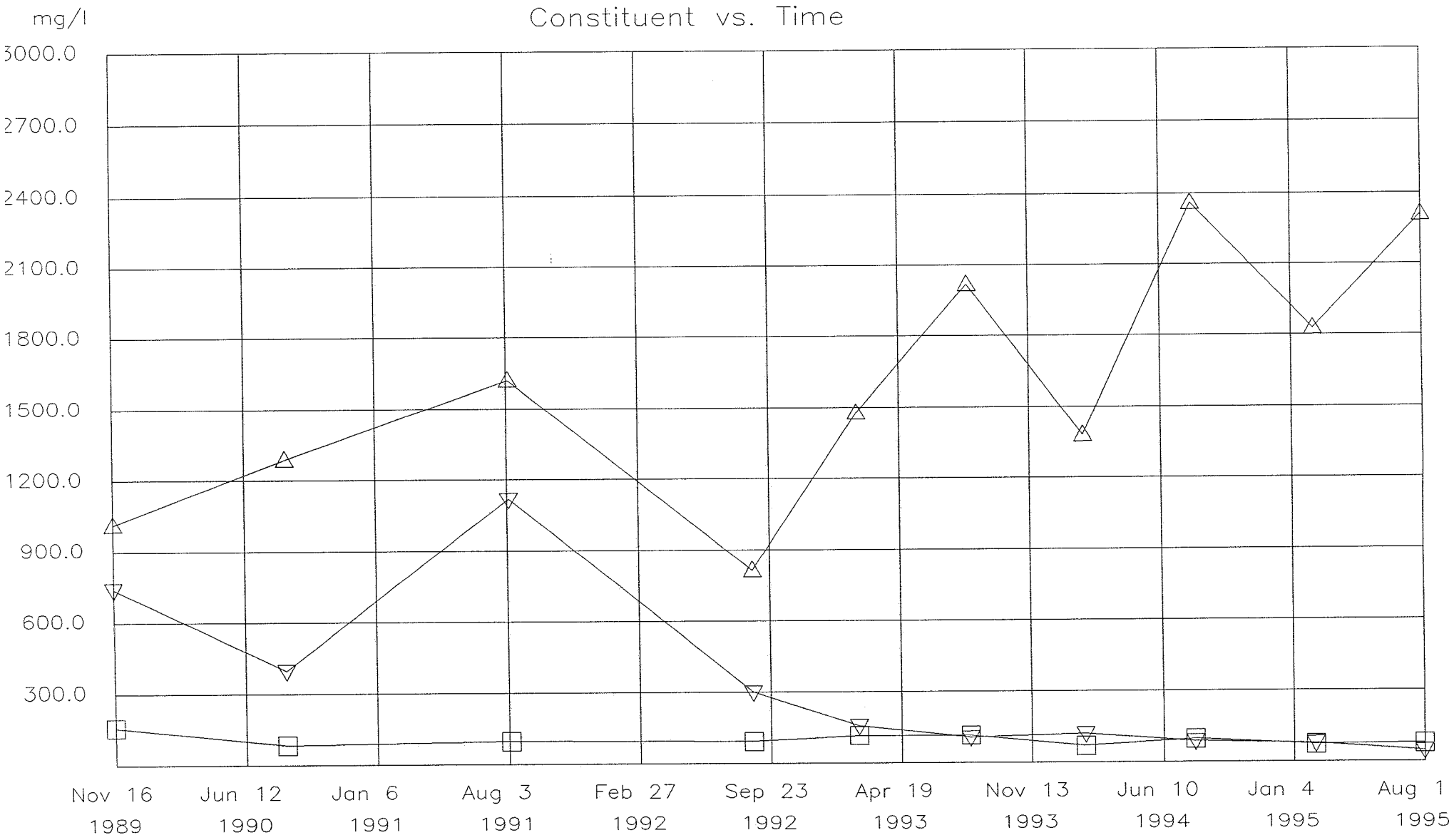


FIGURE 29

PF Code: T

Site: MW-05

△ = pH

Constituent vs. Time

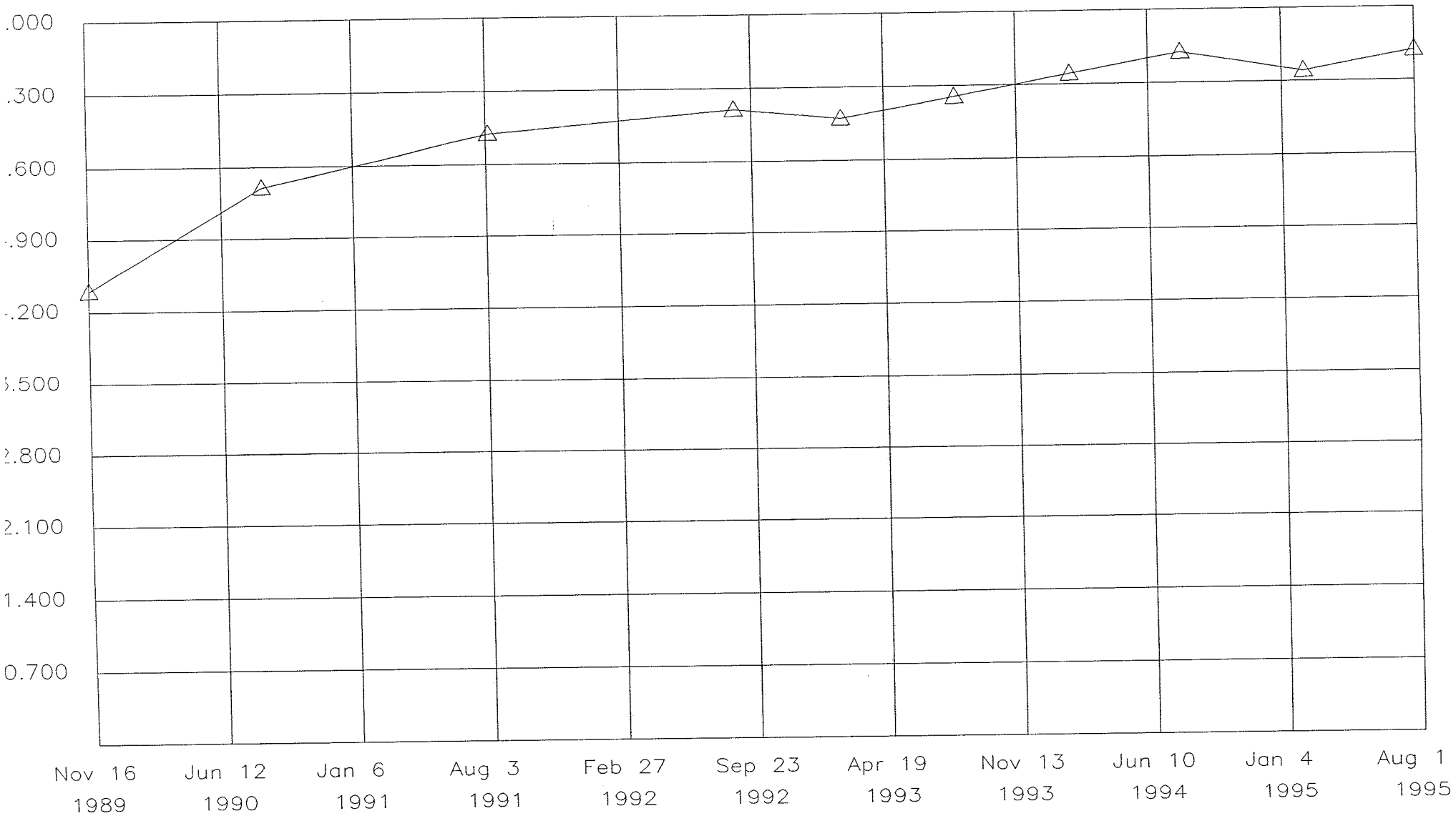
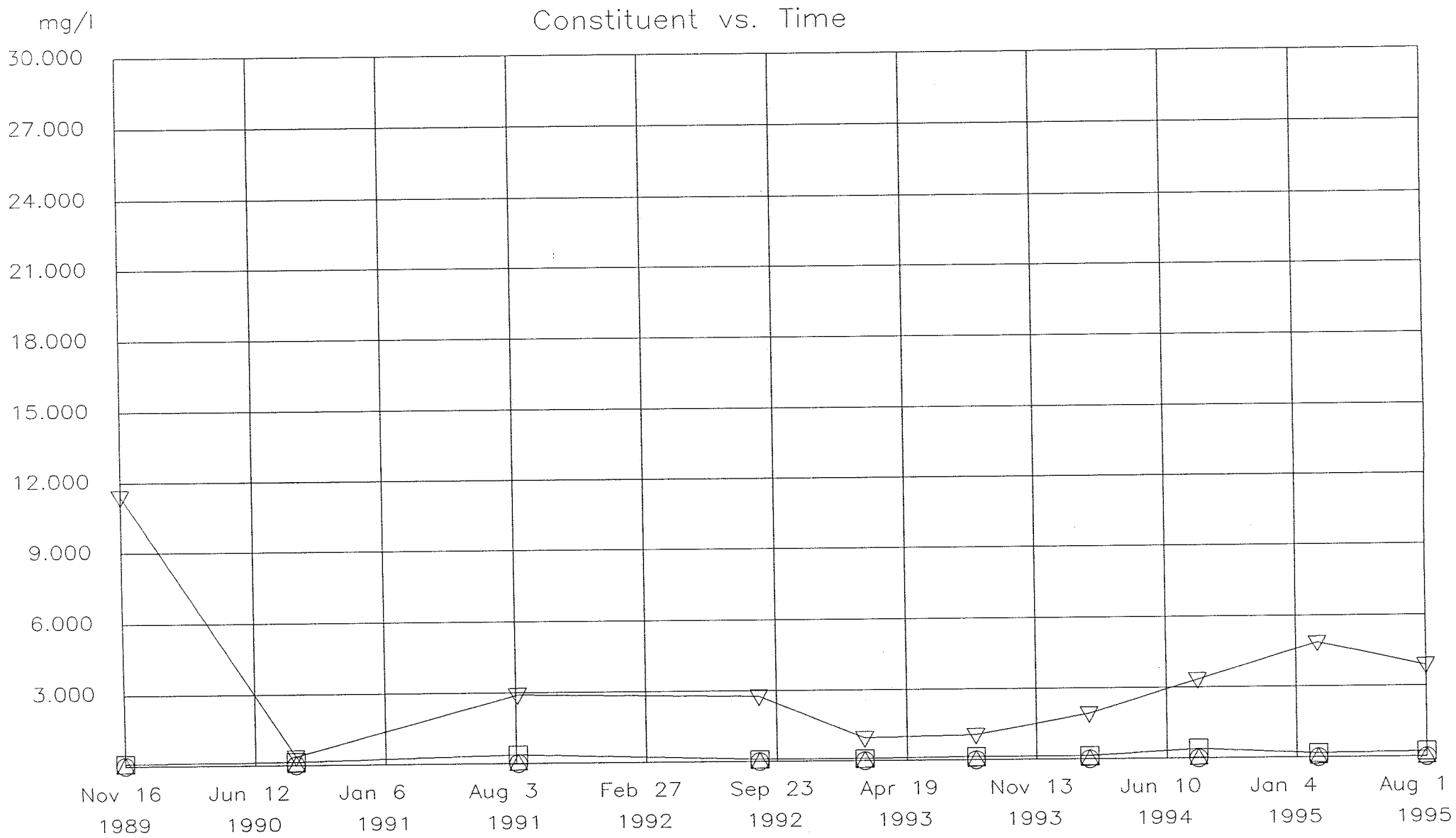


FIGURE 30

PF Code: T

Site: MW-05

△ = Lead
▽ = Iron
□ = Manganese
○ = Zinc



ATTACHMENT I

Domenico

DOMINICO MODEL

Input Data	
Source Concentration (mg/l)	2310
Source Width (ft)	2400
Source Thickness (ft)	35
Distances - Source to Receptor (ft)	
Longitudinal (downgradient)	500
Transverse (crossgradient)	0
Vertical	0
Water Table Gradient (ft/ft)	0.0168
Hydraulic Conductivity (ft/day)	0.5855
First Order Decay Rate (days^-1)	0.00005
Partitioning Coefficient, Koc chemical specific (ml/g)	0
Effective Porosity (%)	25%
Organic Content of Soil (%)	0.0%
Bd (kg/cu m)	1500

Calculated Data	
Dispersivities (ft)	
Longitudinal (downgradient)	50
Transverse (crossgradient)	16.6666667
Vertical	2.5
Seepage Velocity (ft/day)	0.0393456
Retardation Factor	1
Retarded Seepage Velocity (ft/day)	0.0393456
Time to receptor (days)	12707.9013
Time to receptor (years)	34.82
PREDICTED CONCENTRATION AT RECEPTOR (mg/L)	**316.068093**
PREDICTED CONCENTRATION AT RECEPTOR (ug/L)	**316068.09**

RESULTS OF ALL EQUATIONS

equation 1	316.06809	mg/l	(used if receptor is on centerline of plume)
equation 2	316.06809	mg/l	(used if receptor is off centerline AND 1st order decay is zero)
equation 3	136.87107	mg/l	(used if receptor is off centerline and 1st order decay is non-zero)

EQUATION 1 316.06809 mg/l

			abs val	calc t	abs erf	erf	erfc
first portion	(A)	1155					
erfc argument	(B)	0	0	1	0	0	1
erf argument	(C)	6.57267069	6.5726707	0.2443647	1	1	
erf argument	(D)	0.247487373	0.2474874	0.8957079	0.273652	0.27365203	

EQUATION 2 316.06809 mg/l

			abs val	calc t	abs erf	erf	erfc
first portion	(A)	288.75					
erfc argument	(B)	0	0	1	0.00E+00	0	1
erf argument	(C)	6.57267069	6.5726707	0.2443647	1	1	
erf argument	(D)	-6.57267069	6.5726707	0.2443647	1	-1	
erf argument	(E)	0.247487373	0.2474874	0.8957079	0.273652	0.27365203	
erf argument	(F)	-0.24748737	0.2474874	0.8957079	0.273652	-0.273652	

EQUATION 3 136.87107 mg/l

			abs val	calc t	abs erf	erf	erfc
first portion	(A)	158.55498					
erfc argument	(B)	-0.18956585	0.1895658	0.9181176	2.11E-01	-0.2113703	0.78863
erf argument	(C)	6.57267069	6.5726707	0.2443647	1	1	
erf argument	(D)	-6.57267069	6.5726707	0.2443647	1	-1	
erf argument	(E)	0.247487373	0.2474874	0.8957079	0.273652	0.27365203	
erf argument	(F)	-0.24748737	0.2474874	0.8957079	0.273652	-0.273652	

ATTACHMENT II

WEYERHAEUSER COMPANY
PLYMOUTH, NORTH CAROLINA MILL

CURRENT DESIGNATION	FUTURE DESIGNATION
MW-01	LF-01
MW-01A	LF-01A
MW-02	LF-02
MW-03	LF-03
MW-04	LF-04
MW-05	LF-05
MW-06	LF-06
MW-06A	LF-06A
MW-07	LF-07
MW-08	LF-08
OW-01	LFO-01
OW-02	LFO-02
OW-03	LFO-03
OW-04	LFO-04
OW-05	LFO-05
OW-06	LFO-06
OW-07	LFO-07

RECORD OF COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE
☐ OTHER (SPECIFY)

(Record of item checked above)

TO: Susan

FROM: Greg

DATE 10/10/96

TIME

SUBJECT Weyerhauser Plymouth Landfill

SUMMARY OF COMMUNICATION

Richard Gray and Chuck Sherron of RMT (Weyerhauser's Consultant) stopped by to talk about the Plymouth Landfill. They had 3 main issues to discuss:

1) Continued operations in Phase II until 2001 with the possible use of a GCL in lieu of 18" of 10^{-6} in some areas for closure

2) Use of an alternative base liner system for the proposed Phase III (probably a composite 60 mil HDPE + GCL on a natural subgrade)

3) Concern over an anomalous piezometer reading in order to establish base grades for Phase III.

CONCLUSIONS, ACTION TAKEN OR REQUIRED

They need an "OK" in order to continue operations in Phase II very soon! Richard said he would probably call back later this week to see if you'd made a decision

INFORMATION COPIES

TO:

EPA Form 1300-6 (7-72)