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REPORTS

DATE:

JAN. 28, 1994

GEOWEST
Golden, Inc.

January 28, 1994

Mr. William C. Olson, Hydrogeologist
State of New Mexico Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504

RE: Ground Water Quality Monitoring Report
Maverik Refinery and Tank Farm
Kirtland, New Mexico

Dear Bill:

On behalf of our client, Maverik Country Stores, Inc., we are transmitting a report describing the ground water monitoring activities conducted during May and November 1993, at the Maverik Refinery Tank Farm, Kirtland, New Mexico. The results of the May sampling have been previously transmitted to you informally in a letter report dated June 28, 1993.

During 1994, Maverik anticipates performing those activities requested in your May 17, 1993 letter to Maverik consisting of semi-annual sampling of on-site wells, annual sampling of off-site wells, and nutrient addition to the area within the slurry wall confines to stimulate biodegradation.

We will advise you in advance of the conduct of these field activities. We anticipate that the first ground water sampling event and the nutrient addition activities will take place in May or June.

Sincerely,

GeoWest Golden, Inc.

Peter F. Olsen
Senior Project Manager

cc Denny Foust, New Mexico OCD

REPORT
GROUND WATER QUALITY MONITORING RESULTS
MAVERIK REFINERY TANK FARM
KIRTLAND, NEW MEXICO
MAVERIK COUNTRY STORES, INC.

January 28, 1994

Prepared by:

GeoWest Golden, Inc.
Salt Lake City, Utah

Job No. 9131.01

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1.0 INTRODUCTION

This is to report the results of ground water quality monitoring, water level measurements and other activities at the former Maverik Country Stores Refinery and Tank Farm, Kirtland, New Mexico. A previous report dated April 26, 1993 presented results of the Third and Fourth Quarter 1992 and First Quarter 1993 investigations and a letter report dated June 28, 1993 presented the results of the Second Quarter 1993 sampling which took place on May 23, 1993. Numerous earlier reports present results of site investigations dating back to 1987.

This report presents the results of ground water sampling which took place on May 23, 1993 and November 29 and 30, 1993.

2.0 SCOPE OF WORK

Some changes to the Scope of Work conducted at the site were requested in the April 26, 1993 report and certain of these were agreed upon in a letter dated May 17, 1993 from Mr. William C. Olson, New Mexico Oil Conservation Division to Mr. William Call of Maverik Country Stores. The new Scope of Work is as follows:

1. Reduce frequency of water quality and water level measurements to two times per year, once at the beginning of the primary biodegradation season (in May or June) and once at the end of the season (in October or November).

2. Obtain water level measurements and samples for water quality testing during both semi-annual sampling events from on-site wells MW-10, 19 and 20 downgradient of the slurry wall, MW-18 upgradient of the slurry wall, MW-21 outside the slurry wall and downgradient of MW-18, and MW-17 and 22 within the confines of the slurry wall.

3. During one of the two semi-annual sampling events, in addition to the measurements and samples required under (2) above, obtain water level measurements and samples for water quality analysis from off-site monitor wells MW-9, 13, 14, 15 and 16.

4. On an annual basis, add nutrients to the contaminated area within the slurry wall to enhance in-situ biodegradation of the remaining hydrocarbons.

The water quality samples were analyzed by Mountain States Analytical Laboratory, Salt Lake City, Utah, for benzene, toluene, ethylbenzene and xylenes (BTEX) as well as for 1,2-dichloroethane (DCA) by EPA Methods 601/602. Field measurements of ground water pH, specific conductance and temperature were also made.

Three casing volumes were purged from each well by bailing with an HDPE disposable bailer prior to sampling. A separate disposable bailer was used to collect samples. Since a hydrocarbon sheen had been previously noted on some of the wells within the slurry wall, in an effort to reduce this potential source of error in the analytical

results, samples were obtained in these wells using a sampling device consisting a new 50 ml syringe mounted at the end of a length of decontaminated 1-inch diameter PVC which could be activated from the surface. Samples were removed from about half way down the water column in the wells.

A Hydac pH, conductivity and temperature meter was used to make field measurements of these parameters and a Keck ET-89 electric tape was employed to measure water levels.

Although not required by OCD, for the first time the four piezometers installed near the inside corners of the slurry wall (P-1 through P-4) were sampled and analyzed to provide further insight into the contaminant concentrations inside the slurry wall other than that which is provided by MW-17 and MW-22. These 2-inch diameter piezometers are completed as monitor wells to a total depth of 8 feet below grade and are screened from 3 to 8 feet below grade. Construction details are included in Appendix B of the April 26, 1993 report.

3.0 RESULTS

3.1 Ground Water Level Elevations, Fluctuations, Direction and Gradients

Water level measurements taken during the May and November 1993 sampling events are recorded on Tables 1 and 2, respectively. Table 3 summarizes the depths of ground water below ground surface during these two and five prior sampling events. Figure 1 shows the locations of each well and piezometer. Note that the base map for Figure 1 is a 1987 aerial photograph; all tankage and pipelines shown have since been removed.

The water level data illustrates the same pattern which has been evident during several years of investigations at this site. The direction of flow is toward the southwest, the water table is typically 1-4 feet below grade, and the ground water level normally fluctuates 2-3 feet over an annual cycle reaching its maximum elevation in mid-winter. The shallow ground water has been shown in the past to be significantly influenced by the operation of the Farmers' Mutual Irrigation Ditch located along the northern property boundary.

The water level data during the present and previous reporting periods indicates an overall shallow ground water gradient to the southwest of about 1 ft/100 ft between the north and south property boundaries, steepening somewhat adjacent to and downgradient of the slurry wall. Previous measurements indicated the presence of a gradient within the slurry wall not too dissimilar to that outside the slurry wall. The four piezometers installed within the slurry wall boundaries were installed specifically to provide further insight into this observation.

Distances between various pairs of wells/piezometers were measured in the field or determined from the surveyed co-ordinates and the gradients determined for the last six

measuring events. This data is summarized in Table 4. The water level data was analyzed to determine the magnitude and timing of changes in elevations in wells located inside vs. outside the slurry wall.

Using the data in Table 4, the average gradient between wells/piezometers located inside the slurry wall during the six comparison periods has been 0.648 ft/100 ft while the gradient between wells located outside the slurry wall has been 0.977 ft/100. ft.

As was explained in some detail in the April 26, 1993 report, the differential between the gradients inside and outside the slurry wall is apparently due to the differential evapotranspiration rates between the upgradient and downgradient portion of the area within the confines of the slurry wall. It is likely that the presence of a gradient within the confines of the slurry wall will continue on a permanent basis since it appears to be the result of natural climatic phenomena. It can be safely concluded on the basis of both the hydrologic data and the water quality results that the slurry wall is maintaining its integrity and is performing its function of containing the contaminated ground water within.

3.2 Water Quality Analyses

Water quality monitoring results for the May and November 1993 sampling events are summarized in Table 5 along with results from the eight previous sampling events which have taken place in most wells since the slurry wall was installed in June, 1990. The laboratory's report forms for the two most recent events are included as Appendix A.

Figures 1 and 2 show the concentrations of DCA, benzene, and total BTEX detected in each well sampled during the May and November 1993 sampling events.

The five off-site monitor wells (MW-9, 13, 14, 15 and 16) were sampled only during the November sampling event. With the exception of a report of 1.2 μg/l DCA in MW-14, all samples were reported as having DCA and BTEX concentrations below 1 μg/l detection limits. This is consistent with recent findings in these wells.

Five on-site wells were sampled during both periods which were outside the confines of the slurry wall. In the three down-gradient wells (MW-10, 19 and 20) the samples were below detection limits for BTEX. MW-10 and 20 samples were also below detection limits for DCA but DCA was detected at concentrations of 7.9 and 6.6 μg/l in MW-19 during the May and November periods, respectively. These values are consistent with the results of previous recent sampling events.

In well M-21, adjacent to but outside the slurry wall, only DCA was detected at 14.8 and 3.7 μg/l during the May and November sampling periods, respectively. This is also consistent with recent values for this analyte in this well.

In the other on-site well, MW-18, upgradient of the slurry wall, no DCA was detected but relatively low concentrations of BTEX constituents were detected. While benzene (at 73 and 337 μg/l during the two sampling events) was in excess of drinking water standards, toluene, ethylbenzene and xylenes were not in excess of EPA's MCL's. The non-detection of BTEX components in MW-21 downgradient of MW-18 and the reverse situation regarding DCA, suggests that the BTEX constituents in ground water sampled by MW-18 are attenuated or biodegraded in transit around the east side of the slurry wall before they reach the area sampled by MW-21 and do not pose an off-site threat.

The two monitor wells located within the confines of the slurry wall (MW-17 and 22) are designed primarily to assess the progress of biodegradation taking place within the highly contaminated portion of the site. The original MW-17 was apparently destroyed

during removal of the tankage during the fall of 1991 and was replaced by an identical well during June 1992.

The concentrations of BTEX components and DCA have been very high in both of these wells. Biodegradation has been ongoing in the vicinity of both wells as evidenced by the very low levels of sulfate observed previously in the water samples (approximately 2 orders of magnitude lower than in wells outside the slurry wall). However, this is not immediately evident from cursory examination of the concentrations of the various organic constituents, as summarized in Table 5 and as graphically portrayed in the two time-series plots (Figures 3 and 4) of benzene and total BTEX concentrations in MW-17 and MW-22.

The BTEX and DCA concentrations detected in the four piezometers located within the slurry wall confines provide information, when compared with the results in MW-17 and MW-22, of the variability in contaminant concentrations over short distances. The DCA concentrations were much lower (ranging from <1 to 11.5 μg/l) in the four piezometers than in the two wells located within the slurry wall. BTEX concentrations varied greatly in the four piezometers. In the two piezometers at the south or downgradient portion of the enclosed area (P-2 and P-3), concentrations ranged from <1 μg/l (the detection limit) to 5.2 μg/l (the latter, all benzene, just above the MCL of 5.0 μg/l). In the two piezometers located at the north or upgradient portion of the enclosed area (P-1 and P-4), BTEX concentrations were several magnitudes higher but still about one-half to one-third the concentrations in MW-17 and MW-22.

In the April 26, 1993 report, the concentrations of organics in the ground water samples from the two wells within the confines of the slurry wall were analyzed to determine an average rate of decline over the 2.2 year time span since the first sampling following slurry wall installation through and including the December 1993 results. This

has not been attempted again with the 1993 data included. A problem in determining valid rates of decline is the large variability in analytical results from one sampling period to the next.

This variability has been previously recognized and has been attributed to the inclusion of free phase product into the samples. Measures were taken to prevent such contamination including sampling through "drop-pipes" and in 1993, utilizing a syringe sampling device as noted earlier. During all three 1993 sampling events, a sheen was reported to be present on the water surface in both MW-17 and MW-22. Although the variability observed between samplings of the same well may be due to other factors, we believe it is more likely related to the inclusion of microglobules of free product in the sample. If this is the case, it appears that the methods employed thus far have not solved the problem of collecting an uncontaminated sample. Thus, the analytical results from MW-17 and MW-22 may not be a reliable indicator by which to estimate the progress of hydrocarbon biodegradation within the slurry wall.

3.3 Nutrient Additions

As requested in the May 17, 1993 letter from OCD to Maverik, nutrient addition operations to stimulate hydrocarbon biodegradation were conducted within the area enclosed by the slurry wall during the period June 7-11, 1993. The area was leveled using a dozer blade and the ground surface ripped using a dozer equipped with 3.5 ft long ripping teeth. Some 4,000 lbs of 16-20-0 ammonium phosphate granular fertilizer was applied to the area and disked into the soil; this fertilizer formulation and application rate had been determined during the 1990 nutrient addition study to be appropriate to supply the essential nutrients (nitrogen and phosphorus) to stimulate microbial activity at the site. The fertilizer was watered in over a three-day period using a commercial, impulse-type water applicator. Approximately 150,000 gallons of water was applied during this period.

4.0 CONCLUSIONS AND RECOMMENDATIONS

All data indicate that the slurry wall has maintained its integrity and is performing its function of containing the contaminated ground water. Ground water samples from all monitor wells downgradient from the slurry wall exhibit concentrations of BTEX and DCA either below the detection limit or below New Mexico drinking water standards.

There is evidence that the organic contaminants in the ground water within the slurry wall are undergoing biodegradation, but the rate at which this is occurring is slow.

Maverik recommends that the current Scope of Work at the facility be continued, i.e., as specified in Section 2.0 above, semi-annual water quality and water level monitoring of on-site wells, annual monitoring of off-site wells, and annual addition of nutrients to the contaminated area within the slurry wall.

Maverik proposes that, as per the 1993 Scope of Work, results of the first sampling of the year be transmitted to OCD within 4 weeks of receipt of final laboratory results via a transmittal letter and a summary table in the format of Table 5. The results of the second sampling will be transmitted in a more formal interpretive report by the last day of the year; this will also include the previously collected data. Maverik will notify OCD at least one week in advance of sampling activities.

TABLE 1

WATER LEVEL ELEVATIONS
MAY 1993

Location	Datum (ft, msl)	Water Level (ft, msl)	Change in Water Level Since 3/93 (ft)	Depth to Water Below Ground Surface (ft)
MW-1	5207.24	NM	NM	NM
MW-2	5196.93	NM	NM	NM
MW-9	5191.22	NM	NM	NM
MW-10	5189.30	5184.77	1.17	2.8
MW-13	5187.76	NM	NM	NM
MW-14	5194.47	NM	NM	NM
MW-15	5188.80	NM	NM	NM
MW-16	5194.98	NM	NM	NM
MW-17	5195.91	5188.22	-0.84	3.9
MW-18	5201.75	5190.84	-0.41	7.1
MW-19	5189.54	5186.12	-1.00	2.2
MW-20	5191.05	5186.32	-1.01	3.7
MW-21	5194.81	5188.86	-1.48	4.7
MW-22	5195.86	5188.86	-0.70	5.7
P-1	5197.66	5189.70	-0.61	6.1
P-2	5192.32	5187.33	-0.94	3.1
P-3	5193.21	5187.80	-0.95	3.6
P-4	5198.82	5189.49	-0.52	7.6

NM = Not Measured

TABLE 2

WATER LEVEL ELEVATIONS
NOVEMBER 1993

Location	Datum (ft, msl)	Water Level (ft, msl)	Change in Water Level Since 5/93 (ft)	Depth to Water Below Ground Surface (ft)
MW-1	5207.24	NM	NM	NM
MW-2	5196.93	NM	NM	NM
MW-9	5191.22	5188.13	NM	1.3
MW-10	5189.30	5185.76	+0.99	1.8
MW-13	5187.76	5186.19	NM	1.4
MW-14	5194.47	5188.99	NM	1.7
MW-15	5188.80	5184.47	NM	0.6
MW-16	5194.98	5190.65	NM	3.0
MW-17	5195.91	5189.23	+1.01	2.9
MW-18	5201.75	5192.75	+1.91	5.2
MW-19	5189.54	5187.34	+1.22	1.0
MW-20	5191.05	5187.42	+1.10	2.6
MW-21	5194.81	5190.21	+1.35	3.3
MW-22	5195.86	5190.14	+1.28	4.4
P-1	5197.66	5191.43	+1.73	4.4
P-2	5192.32	5188.54	+1.21	1.9
P-3	5193.21	5188.81	+1.01	2.6
P-4	5198.82	5190.95	+1.46	6.1

NM = Not Measured

TABLE 3

DEPTH TO GROUND WATER BELOW SURFACE (FT.)

Location	Jan. 1992	June 1992	Aug. 1992	Dec. 1992	Mar. 1993	May 1993	Nov. 1993
Inside Slurry Wall							
MW-17		3.7	3.4	2.1	3.1	3.9	2.9
MW-22	4.5	5.3	4.7	3.5	5.0	5.7	4.4
P-1		5.4	4.2	3.3	5.5	6.1	4.4
P-2		3.1	2.3	1.0	2.2	3.1	1.9
P-3		3.4	3.6	1.6	2.6	3.6	2.6
P-4		7.0	6.2	5.1	7.1	7.6	6.1
Outside Slurry Wall							
MW-1	10.9	8.4	6.0	8.0	12.3	NM	NM
MW-2	3.8	4.4	3.8	2.5	4.5	NM	NM
MW-9	1.5	2.3	1.8	0.6	1.8	NM	1.3
MW-10	1.6	2.7	2.9	0.9	1.6	2.8	1.8
MW-13		2.8	2.7	1.1	1.7	NM	1.4
MW-14	2.1	4.1	4.2	0.7	2.2	NM	1.7
MW-15	0.8	2.2	2.4	0.1	0.6	NM	0.6
MW-16	3.4	4.5	3.3	1.9	4.0	NM	3.0
MW-18		7.1	5.0	4.5	6.7	7.1	5.2
MW-19	1.0	2.0	1.9	0.3	1.2	2.2	1.0
MW-20	2.6	3.5	3.5	1.8	2.7	3.7	2.6
MW-21	2.8	4.3	4.6	2.2	3.2	4.7	3.3

NM = Not Measured

TABLE 4

GROUND WATER GRADIENTS

Wells and Date	Distance (ft)	Elevation Difference (ft)	Gradient (ft/100 ft)	Mean Gradient (ft/100 ft)
Inside Slurry Wall				
P4 → P3	338			
June '92		2.02	0.598	
Aug. '92		3.08	0.911	
Dec. '92		2.21	0.654	
Mar. '93		1.26	0.372	
May '93		1.69	0.500	
Nov. '93		2.14	0.633	0.611
P4 → P2	360			
June '92		2.66	0.739	
Aug. '92		2.69	0.747	
Dec. '92		2.52	0.700	
Mar. '93		1.74	0.483	
May '93		2.16	0.600	
Nov. '93		2.41	0.669	0.656
P1 → P2	393			
June '92		2.96	0.753	
Aug. '92		3.36	0.855	
Dec. '92		3.01	0.766	
Mar. '93		2.04	0.519	
May '93		2.37	0.603	
Nov. '93		2.89	0.735	0.705
P4 → MW22	106			
June '92		0.78	0.736	
Aug. '92		1.01	0.953	
Dec. '92		0.93	0.877	
Mar. '93		0.45	0.424	
May '93		0.63	0.594	
Nov. '93		0.81	0.764	0.725

TABLE 4 (Continued)

GROUND WATER GRADIENTS

Wells and Date	Distance (ft)	Elevation Difference (ft)	Gradient (ft/100 ft)	Mean Gradient (ft/100 ft)
MW22 → MW17	153			
June '92		0.81	0.529	
Aug. '92		1.11	0.725	
Dec. '92		1.01	0.660	
Mar. '93		0.50	0.326	
May '93		0.64	0.594	
Nov. '93		0.91	0.764	0.542
MW-17 → P2	118			
June '92		1.07	0.906	
Aug. '92		0.57	0.483	
Dec. '92		0.58	0.491	
Mar. '93		0.79	0.669	
May '93		0.89	0.754	
Nov. '93		0.69	0.585	0.648
Outside Slurry Wall				
MW21 → MW20	300			
June '92		2.75	0.917	
Aug. '92		2.45	0.817	
Dec. '92		3.14	1.047	
Mar. '93		3.01	1.003	
May '93		2.54	0.847	
Nov. '93		2.79	0.930	0.927
MW16 → MW13	420			
June '92		4.51	1.070	
Aug. '92		5.57	1.326	
Dec. '92		5.34	1.271	
Mar. '93		3.81	0.907	
May '93		NM	-----	
Nov. '93		4.46	1.062	1.128

TABLE 4 (Continued)

GROUND WATER GRADIENTS

Wells and Date	Distance (ft)	Elevation Difference (ft)	Gradient (ft/100 ft)	Mean Gradient (ft/100 ft)
MW16 → MW9	275			
June '92		2.88	1.047	
Aug. '92		2.70	0.982	
Dec. '92		2.92	1.062	
Mar. '93		2.05	0.745	
May '93		NM	-----	
Nov. '93		2.52	0.916	0.950
MW21 → MW10	370			
June '92		4.58	1.238	
Aug. '92		4.39	1.186	
Dec. '92		4.73	1.278	
Mar. '93		4.40	1.189	
May '93		4.09	1.105	
Nov. '93		4.45	1.202	1.203
MW18 → MW21	331			
June '92		1.52	0.459	
Aug. '92		3.92	1.184	
Dec. '92		2.58	0.779	
Mar. '93		0.91	0.275	
May '93		1.98	0.598	
Nov. '93		2.54	0.767	0.677

TABLE 5

SUMMARY OF GROUND WATER QUALITY MONITORING RESULTS SINCE INSTALLATION OF SLURRY WALL

Location	Sampling Period	DCA	B	T	E	X	Total BTEX	pH	SC
Within Slurry Wall									
MW-17	1 (9/90)	360*	11,000*	15,000*	1,160*	13,000*	40,000	7.01	2,500
	2 (3/91)	400*	11,000*	10,000*	1,900*	15,000*	37,900	7.04	2,700
	3 (6/91)	420*	9,800*	6,300*	1,800*	16,000*	33,900	7.04	2,650
	4 (1/92)	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
	5 (6/92)	45*	9,240*	7,580*	1,150*	7,190*	25,160	7.26	2,730
	6 (8/92)	27*	7,710*	1,920*	669	5,130*	15,429	7.23	2,810
	7 (12/92)	17.3*	7,990*	4,740*	638	4,600*	17,968	7.54	2,970
	8 (3/93)	16.8*	13,800*	6,830*	1,110*	6,930*	28,670	7.37	2,610
	9 (5/93)	12.5*	13,700*	6,360*	993*	10,530*	31,583	7.33	2,470
	10 (11/93)	30.9*	8,590*	2,820*	636	4,880*	16,926	7.39	2,360
MW-22	1 (9/90)	7,200*	21,000*	20,000*	1,100*	8,300*	50,400	7.00	1,500
	2 (3/91)	2,200*	17,000*	9,500*	910*	6,600*	34,010	6.87	1,900
	3 (6/91)	3,600*	15,000*	3,200*	760*	3,000*	21,960	7.06	1,700
	4 (1/92)	5,400*	36,000*	27,000*	1,900*	13,500*	78,400	6.86	1,600
	5 (6/92)	3,170*	21,200*	7,540*	1,040*	5,730*	35,510	7.13	1,690
	6 (8/92)	568*	20,500*	4,610*	588	3,280*	28,978	7.28	1,545
	7 (12/92)	908*	12,100*	4,220*	514	3,254*	20,088	7.43	1,508
	8 (3/93)	1,930*	29,800*	14,100*	1,170*	7,030*	52,100	7.26	1,408
	9 (5/93)	28*	17,000*	6,520*	1,100*	6,150*	30,770	7.61	6,550
	10 (11/93)	2,780*	18,400*	8,480*	1,150*	7,300*	35,330	8.01	1,610
P-1	9 (5/93)	<1	4,110*	18.8	361	2,522*	7,012	7.04	2,290
	10 (11/93)	<1	3,580*	10.2	506	3,215*	7,311	7.22	1,460
P-2	9 (5/93)	3.2	5.2*	<1	<1	<1	5.2	7.36	3,910
	10 (11/93)	<1	<1	<1	<1	<1	<1	7.92	3,540
P-3	9 (5/93)	10.6*	<1	<1	<1	<1	<1	7.24	11,160
	10 (11/93)	11.5*	<1	<1	<1	<1	<1	7.31	9,140
P-4	9 (5/93)	8.3	6,690*	4,090*	559	6,260*	17,599	NA	NA
	10 (11/93)	2.1	6,400*	4,420*	900*	7,700*	19,420	NA	NA

TABLE 5 (continued)

SUMMARY OF GROUND WATER QUALITY MONITORING RESULTS SINCE INSTALLATION OF SLURRY WALL

Location	Sampling Period	DCA	B	T	E	X	Total BTEX	pH	SC
On-Site									
MW-10	1 (9/90)	1.4	<0.5	<0.5	<0.5	<1	<1	6.95	1,550
	2 (3/91)	<1	<0.5	<0.5	<0.5	<0.5	<0.5	7.29	1,700
	3 (6/91)	NA	NA	NA	NA	NA	NA	NA	NA
	4 (1/92)	<5	<5	<5	<5	<5	<5	7.31	1,840
	5 (6/92)	1.6	<1	<1	<1	<1	1.6	7.65	1,400
	6 (8/92)	<1	<1	<1	<1	<1	<1	7.85	1,160
	7 (12/92)	<1	<1	<1	<1	<1	<1	7.64	6,110
	8 (3/93)	<1	<1	<1	<1	<1	<1	7.22	9,060
	9 (5/93)	1	<1	<1	<1	<1	<1	7.93	2,320
	10 (11/93)	<1	<1	<1	<1	<1	<1	7.73	1,320
MW-18	1 (9/90)	<1	17*	<12	84	880*	981	7.00	1,500
	2 (3/91)	<1	26*	<12	85	770*	881	7.24	1,200
	3 (6/91)	<1	<25	<25	78	930*	1,008	6.77	1,200
	4 (1/92)	MSG	MSG	MSG	MSG	MSG	MSG	MSG	MSG
	5 (6/92)	<1	313*	1.1	200	1,710*	2,224	7.07	1,480
	6 (8/92)	<1	527*	10.8	258	2,075*	2,871	7.26	2,100
	7 (12/92)	<25	294*	<25	224	1,460*	1,978	7.31	1,930
	8 (3/93)	<1	117*	8	96	226	447	7.07	2,780
	9 (5/93)	<1	73*	<1	31.2	259	363	7.15	2,220
	10 (11/93)	<1	337*	4.9	261	1,352*	1,955	7.00	1,870
MW-19	1 (9/90)	45*	<0.5	<0.5	1.1	1.9	3	6.95	3,000
	2 (3/91)	35*	<0.5	<0.5	<0.5	<0.5	<0.5	7.22	2,500
	3 (6/91)	44*	<0.5	<0.5	5.9	<0.5	5.9	7.10	2,400
	4 (1/92)	14*	<5	<5	<5	<5	<5	7.66	460
	5 (6/92)	11.4*	<1	<1	<1	<1	<1	7.76	1,970
	6 (8/92)	9.0	<1	<1	<1	<1	<1	7.72	1,320
	7 (12/92)	6.6	<1	<1	<1	<1	<1	7.70	1,620
	8 (3/93)	2.4	<1	<1	<1	<1	<1	7.74	1,750
	9 (5/93)	7.9	<1	<1	<1	<1	<1	7.73	1,630
	10 (11/93)	6.6	<1	<1	<1	<1	<1	7.78	1,380
MW-20	1 (9/90)	<1	<0.5	<0.5	<0.5	<1	<1	7.01	1,350
	2 (3/91)	2.0	<0.5	<0.5	<0.5	0.7	1	7.39	3,000
	3 (6/91)	NA	NA	NA	NA	NA	NA	NA	NA
	4 (1/92)	<5	<5	<5	<5	<5	<5	7.54	3,750
	5 (6/92)	<1	<1	<1	<1	<1	<1	7.62	1,600
	6 (8/92)	<1	<1	<1	<1	<1	<1	6.97	1,310
	7 (12/92)	<1	<1	<1	<1	<1	<1	7.87	1,340
	8 (3/93)	2.1	<1	<1	<1	<1	2	7.10	6,740
	9 (5/93)	<1	<1	<1	<1	<1	<1	7.86	1,430
	10 (11/93)	<1	<1	<1	<1	<1	<1	7.69	1,230

TABLE 5 (continued)

SUMMARY OF GROUND WATER QUALITY MONITORING RESULTS SINCE INSTALLATION OF SLURRY WALL

Location	Sampling Period	DCA	B	T	E	X	Total BTEX	pH	SC
MW-21	1 (9/90)	67*	<0.5	1.5	1.1	5	8	7.01	1,500
	2 (3/91)	44*	<0.5	<0.5	<0.5	<0.5	<0.5	7.62	1,700
	3 (6/91)	40*	<0.5	<0.5	<0.5	<0.5	<0.5	7.44	1,700
	4 (1/92)	8.8	<5	<5	<5	<5	<5	8.31	5,110
	5 (6/92)	21.9*	<1	<1	<1	<1	<1	7.37	2,400
	6 (8/92)	8.3	<1	<1	<1	<1	<1	6.96	1,730
	7 (12/92)	1.7	<1	<1	<1	<1	<1	7.69	2,030
	8 (3/93)	5.9	<1	<1	<1	<1	<1	7.58	1,590
	9 (5/93)	14.8*	<1	<1	<1	<1	<1	7.63	2,530
	10 (11/93)	3.7	<1	<1	<1	<1	<1	7.58	1,580
Off-Site									
MW-9	1 (9/90)	2.1	<0.5	<0.5	<0.5	<1	<1	6.97	1,550
	2 (3/91)	1.8	<0.5	<0.5	<0.5	1.2	1.2	7.57	2,000
	3 (6/91)	NA	NA	NA	NA	NA	NA	NA	NA
	4 (1/92)	<5	<5	<5	<5	<5	<5	7.31	4,360
	5 (6/92)	1.5	<1	<1	<1	<1	<1	7.58	1,680
	6 (8/92)	<1	<1	<1	<1	<1	<1	7.81	1,325
	7 (12/92)	<1	<1	<1	<1	<1	<1	7.33	1,827
	8 (3/93)	1.5	<1	<1	<1	<1	<1	7.63	1,640
	9 (5/93)	NA	NA	NA	NA	NA	NA	NA	NA
	10 (11/93)	<1	<1	<1	<1	<1	<1	7.62	1,460
MW-13	1 (9/90)	<1	<0.5	1.5	<0.5	<1	1.5	7.02	2,950
	2 (3/91)	<1	<0.5	<0.5	<0.5	<0.5	<0.5	7.84	3,250
	3 (6/91)	NA	NA	NA	NA	NA	NA	NA	NA
	4 (1/92)	NA	NA	NA	NA	NA	NA	NA	NA
	5 (6/92)	<1	<1	<1	<1	<1	<1	7.11	4,260
	6 (8/92)	<1	<1	<1	<1	<1	<1	7.06	2,910
	7 (12/92)	NA	NA	NA	NA	NA	NA	NA	NA
	8 (3/93)	<1	<1	<1	<1	<1	<1	7.72	3,410
	9 (5/93)	NA	NA	NA	NA	NA	NA	NA	NA
	10 (9/93)	<1	<1	<1	<1	<1	<1	7.45	4,150
MW-14	1 (9/90)	2.0	<0.5	<0.5	<0.5	<1	<1	6.97	5,450
	2 (3/91)	<1	<0.5	<0.5	<0.5	1.7	<0.5	7.51	8,400
	3 (6/91)	NA	NA	NA	NA	NA	NA	NA	NA
	4 (1/92)	<5	<5	<5	<5	<5	<5	7.20	19,380
	5 (6/92)	2.3	<1	<1	<1	<1	<1	7.62	4,520
	6 (8/92)	<1	<1	<1	<1	<1	<1	7.38	5,760
	7 (12/92)	<1	<1	<1	<1	<1	<1	7.40	9,090
	8 (3/93)	<1	<1	<1	<1	<1	<1	7.02	15,280
	9 (5/93)	NA	NA	NA	NA	NA	NA	NA	NA
	10 (11/93)	1.2	<1	<1	<1	<1	<1	7.61	6,030

TABLE 5 (continued)

SUMMARY OF GROUND WATER QUALITY MONITORING RESULTS SINCE INSTALLATION OF SLURRY WALL

Location	Sampling Period	DCA	B	T	E	X	Total BTEX	pH	SC
MW-15	1 (9/90)	<1	<0.5	<0.5	<0.5	<1	<1	7.00	3,250
	2 (3/91)	<1	<0.5	<0.5	<0.5	<0.5	<0.5	7.02	8,500
	3 (6/91)	NA	NA	NA	NA	NA	NA	NA	NA
	4 (1/92)	<5	<5	<5	<5	<5	<5	7.15	12,120
	5 (6/92)	<1	<1	<1	<1	<1	<1	7.27	3,430
	6 (8/92)	<1	<1	<1	<1	<1	<1	7.39	2,450
	7 (12/92)	NA	NA	NA	NA	NA	NA	NA	NA
	8 (3/93)	<1	<1	<1	<1	<1	<1	7.42	9,810
	9 (5/93)	NA	NA	NA	NA	NA	NA	NA	NA
	10 (11/93)	<1	<1	<1	<1	<1	<1	8.01	1,630
MW-16	1 (9/90)	<1	<0.5	<0.5	<0.5	<1	<1	6.97	1,370
	2 (3/91)	<1	<0.5	<0.5	<0.5	<0.5	<0.5	7.57	1,200
	3 (6/91)	NA	NA	NA	NA	NA	NA	NA	NA
	4 (1/92)	<5	<5	<5	<5	<5	<5	7.30	2,050
	5 (6/92)	<1	<1	<1	<1	<1	<1	7.50	1,430
	6 (8/92)	<1	<1	<1	<1	<1	<1	7.76	1,230
	7 (12/92)	<1	<1	<1	<1	<1	<1	7.12	1,735
	8 (3/93)	<1	<1	<1	<1	<1	<1	7.23	2,400
	9 (5/93)	NA	NA	NA	NA	NA	NA	NA	NA
	10 (11/93)	<1	<1	<1	<1	<1	<1	7.31	1,760
Water Quality Stds.									
New Mexico		10	10	750	750	620		6-9	-----
EPA MCL		5	5	1,000	700	10,000		-----	-----

NOTES:

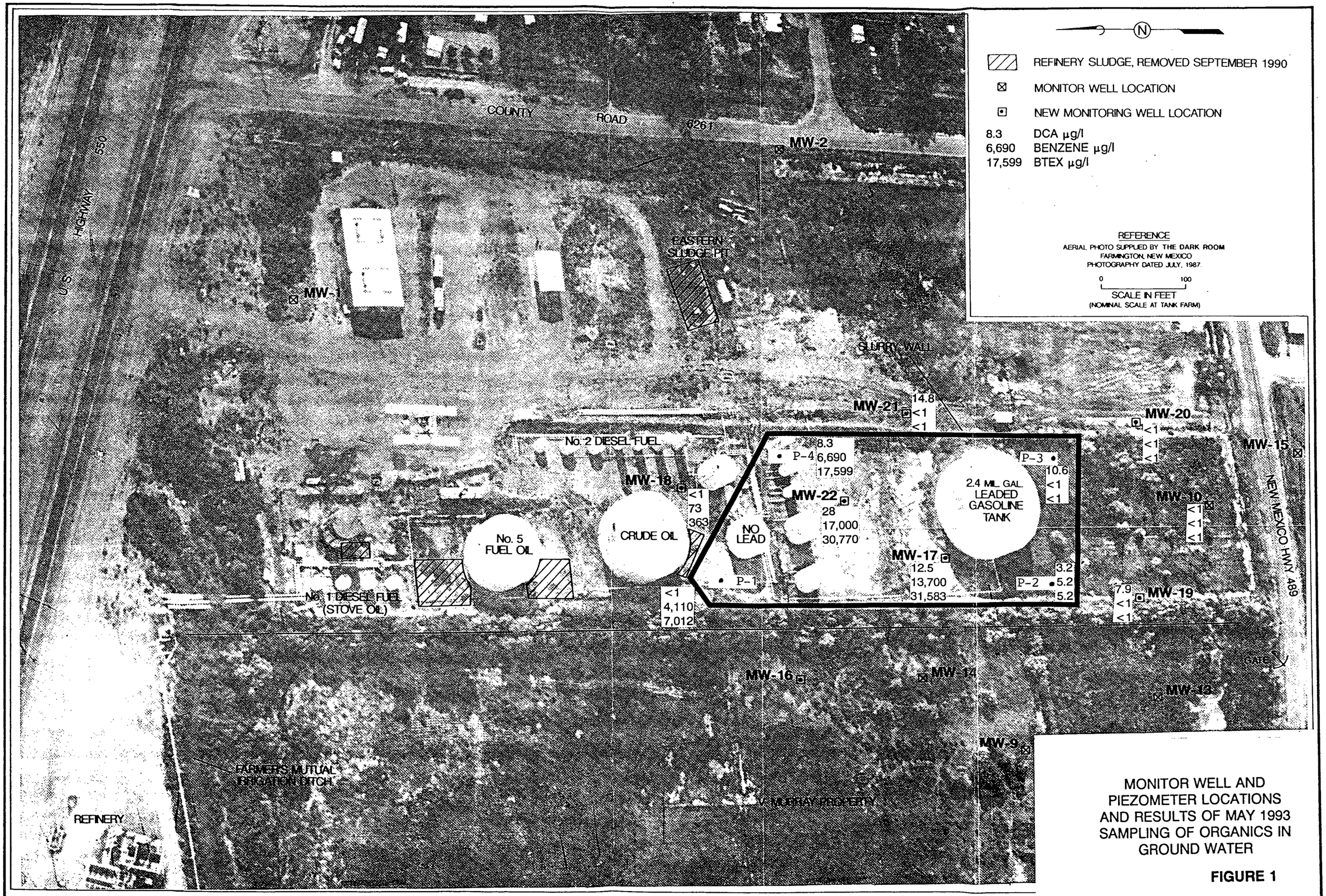
Abbreviations: DCA = 1,2-dichloroethane; B = benzene; T = toluene; E = ethylbenzene; X = xylenes; SC = specific conductivity; TDS = total dissolved solids; MSG = well missing; NA = not analyzed

Organic values in µg/l; pH in standard units; SC in µmhos/cm

Sampling dates: 1 = Sept. 13 & 14, 1990; 2 = March 18 & 19, 1991; 3 = June 13, 1991; 4 = January 20 & 21, 1992; 5 = June 9 & 12, 1992; 6 = August 19 & 20, 1992; 7 = December 16, 1992; 8 = March 30, 1993; 9 = May 23, 1993; 10 = November 29 & 30, 1993

* = exceeds New Mexico MCL for drinking water

From sampling period 5 onward, samples were obtained from replacement wells at MW-17 and MW-18

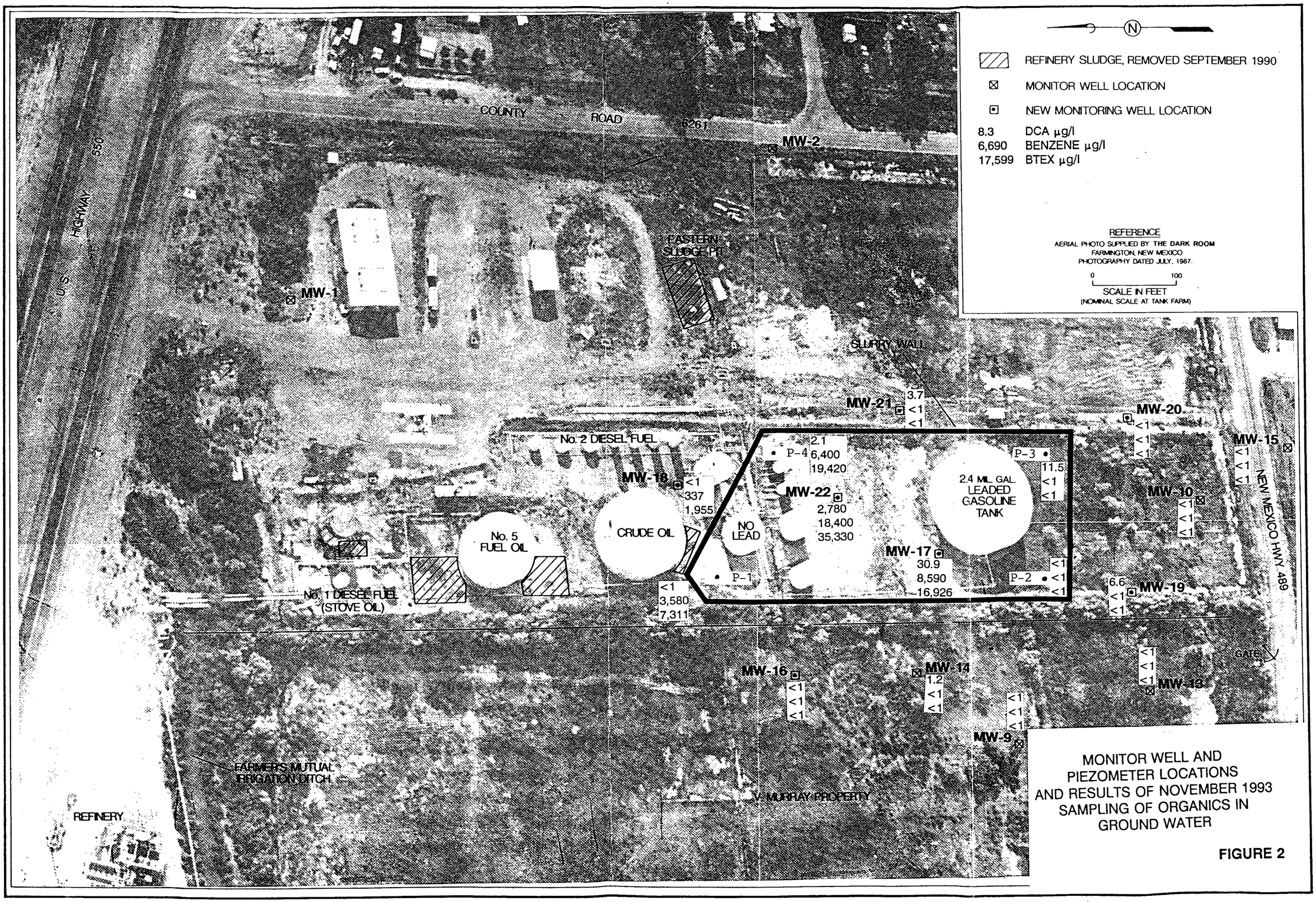


MONITOR WELL AND PIEZOMETER LOCATIONS AND RESULTS OF MAY 1993 SAMPLING OF ORGANICS IN GROUND WATER

FIGURE 1

DATE _____ CHECKED BY _____ DATE _____

FILE 14819-005 BY _____



MONITOR WELL AND PIEZOMETER LOCATIONS AND RESULTS OF NOVEMBER 1993 SAMPLING OF ORGANICS IN GROUND WATER

FIGURE 2

DATE ____ CHECKED BY ____ DATE ____

FILE 1481G-005 BY ____

Concentrations of BTEX and Benzene in MW-17 Since Slurry Wall Installation

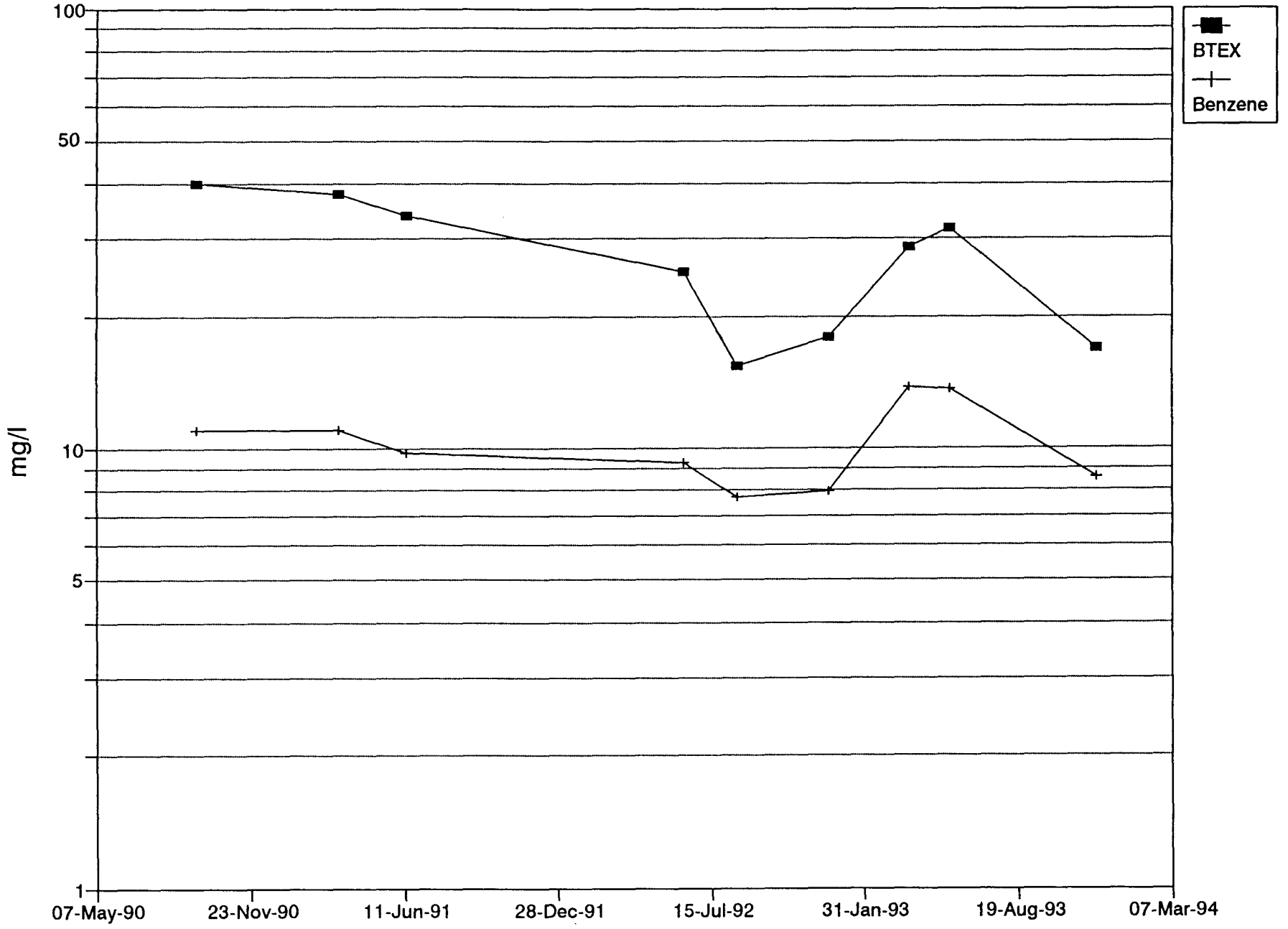


Figure 3

Concentrations of BTEX and Benzene in MW-22 Since Slurry Wall Installation

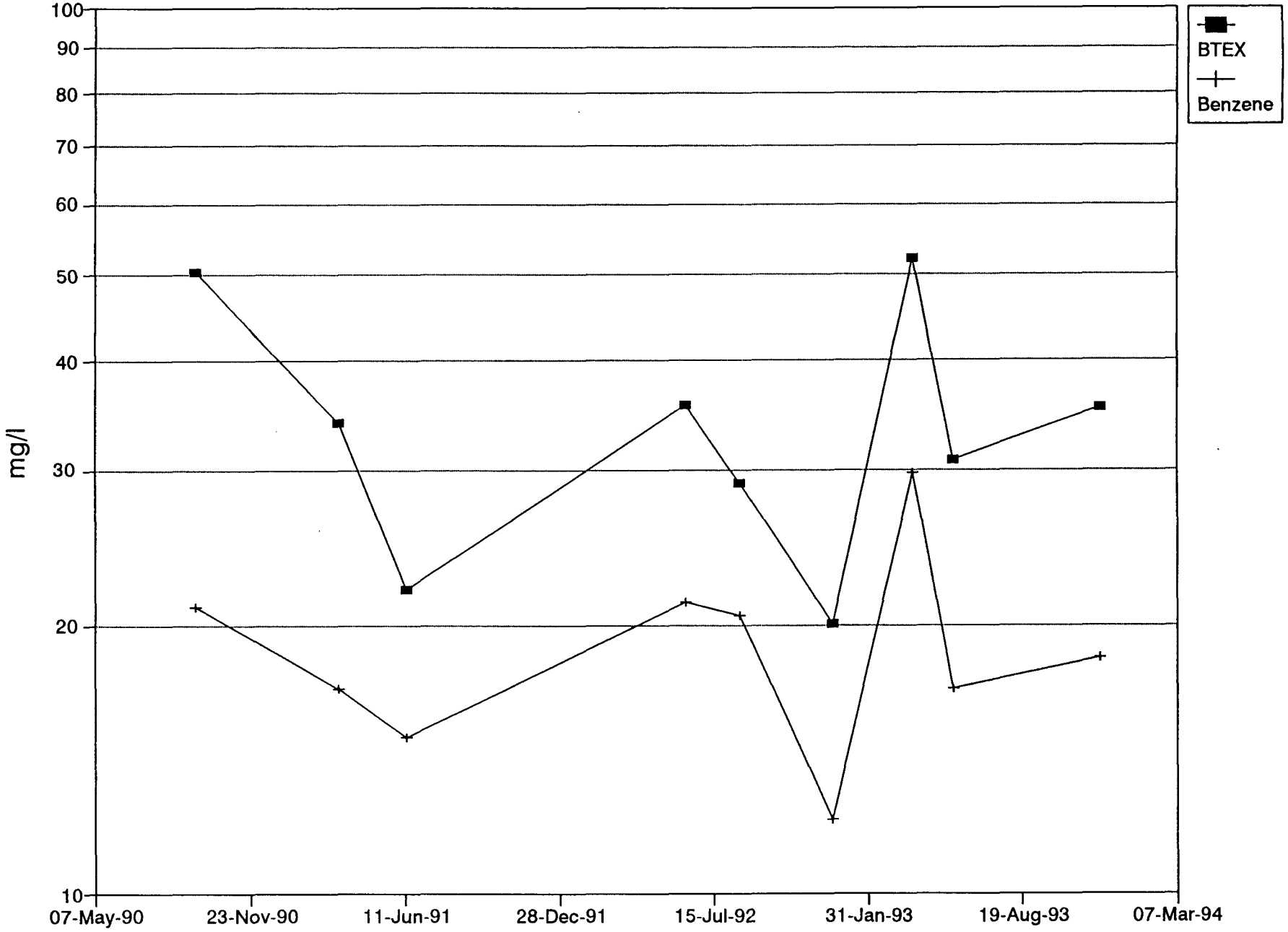


Figure 4

APPENDIX A

LABORATORY ANALYTICAL REPORTS

MAY 1993
NOVEMBER 1993

Mountain States Analytical

The Quality Solution

06/04/93

Mr. Pete Olsen
Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Reference:
Project: Kirtland NM
Project No.: 9131.01
MSAI Group: 1923

Dear Mr. Olsen:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

MW-20 MW-10 MW-19
MW-21

All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely yours,

Leon A. Peterson
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Mountain States Analytical

The Quality Solution

06/08/93

Mr. Pete Olsen
Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Reference:
Project: Kirtland NM
Project No.: 9131.01
MSAI Group: 1924

Dear Mr. Olsen:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

MW-27	MW-17	MW-22
EB-1		

All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely yours,

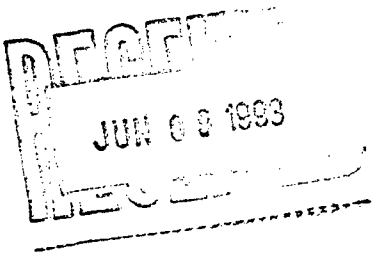
Leon A. Peterson
Project Manager

Mountain States Analytical

The Quality Solution

06/04/93

Mr. Pete Olsen
Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101



Reference:
Project: Kirtland NM
Project No.: 9080.06
MSAI Group: 1925

Dear Mr. Olsen:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

PZ-1 PZ-2 PZ-3
PZ-4

All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely yours,

Leon A. Peterson
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-10
Matrix: Waste Water

MSAI Sample: 8686
MSAI Group: 1923
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/22/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	1.0	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-17
Matrix: Waste Water

MSAI Sample: 8697
MSAI Group: 1924
Date Reported: 06/08/93

Discard Date: 07/08/93
Date Submitted: 05/25/93
Date Sampled: 05/23/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	13,700	ug/l	100
	Toluene	6,360	ug/l	100
	Ethylbenzene	993	ug/l	100
	m,p-Xylene	7,510	ug/l	100
	o-Xylene	3,020	ug/l	100
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	12.5	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-18
Matrix: Waste Water

MSAI Sample: 8900
MSAI Group: 1963
Date Reported: 06/14/93

Discard Date: 07/14/93
Date Submitted: 06/01/93
Date Sampled: 05/28/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	73	ug/l	10
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	31.2	ug/l	1.0
	m,p-Xylene	259	ug/l	10
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-19
Matrix: Waste Water

MSAI Sample: 8687
MSAI Group: 1923
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/22/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	7.9	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-20
Matrix: Waste Water

MSAI Sample: 8684
MSAI Group: 1923
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/22/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-21
Matrix: Waste Water

MSAI Sample: 8690
MSAI Group: 1923
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/22/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	14.8	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-22
Matrix: Waste Water

MSAI Sample: 8698
MSAI Group: 1924
Date Reported: 06/08/93

Discard Date: 07/08/93
Date Submitted: 05/25/93
Date Sampled: 05/23/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	17,000	ug/l	100
	Toluene	6,520	ug/l	100
	Ethylbenzene	1,100	ug/l	100
	m,p-Xylene	4,310	ug/l	100
	o-Xylene	1,840	ug/l	100
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	28.0	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: MW-27
Matrix: Waste Water

MSAI Sample: 8696
MSAI Group: 1924
Date Reported: 06/08/93

Discard Date: 07/08/93
Date Submitted: 05/25/93
Date Sampled: 05/23/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	14,000	ug/l	100
	Toluene	6,180	ug/l	100
	Ethylbenzene	1,070	ug/l	100
	m,p-Xylene	5,860	ug/l	100
	o-Xylene	2,430	ug/l	100
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	10.1	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: EB-1
Matrix: Waste Water

MSAI Sample: 8901
MSAI Group: 1963
Date Reported: 06/14/93

Discard Date: 07/14/93
Date Submitted: 06/01/93
Date Sampled: 05/28/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: EB-1
Matrix: Waste Water

MSAI Sample: 8699
MSAI Group: 1924
Date Reported: 06/08/93

Discard Date: 07/08/93
Date Submitted: 05/25/93
Date Sampled: 05/23/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis Method: EPA 602 - 8020			
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds. Method: 600 SERIES 601			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: PZ-1
Matrix: Waste Water

MSAI Sample: 8700
MSAI Group: 1925
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/28/93
Collected by: DA
Purchase Order:
Project No.: 9080.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	4,110	ug/l	100
	Toluene	18.8	ug/l	1.0
	Ethylbenzene	361	ug/l	100
	m,p-Xylene	2,510	ug/l	100
	o-Xylene	12.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: PZ-2
Matrix: Waste Water

MSAI Sample: 8701
MSAI Group: 1925
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/28/93
Collected by: DA
Purchase Order:
Project No.: 9080.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	5.2	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	3.2	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: PZ-3
Matrix: Waste Water

MSAI Sample: 8702
MSAI Group: 1925
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/23/93
Collected by: DA
Purchase Order:
Project No.: 9080.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	10.6	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Pete Olsen
Project: Kirtland NM

Sample ID: PZ-4
Matrix: Waste Water

MSAI Sample: 8703
MSAI Group: 1925
Date Reported: 06/04/93

Discard Date: 07/04/93
Date Submitted: 05/25/93
Date Sampled: 05/23/93
Collected by: DA
Purchase Order:
Project No.: 9080.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
0516	BTEX Analysis			
	Method: EPA 602 - 8020			
	Benzene	6,690	ug/l	100
	Toluene	4,090	ug/l	100
	Ethylbenzene	559	ug/l	100
	m,p-Xylene	4,250	ug/l	100
	o-Xylene	2,010	ug/l	100
0705A	Unheated P&T, Individual Cmpds.			
	Method: 600 SERIES 601			
	1,2-Dichloroethane	8.3	ug/l	1.0
6159	Chromatograms/Etc.	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical

The Quality Solution

Sample Chain of Custody

GEOWEST

W.O.No.: 9080.06 Project Name: KIRTLAND NM

Sampler: Darrell R Anderson

	Sample Number	Date	Time	COMP	GRAB	Station Location	Number of Containers	BTEX	DCA					Remarks
*	Pz-1	5-23	1130			KIRTLAND	2	X	X					Results to Pete Olsen
*	Pz-2	5-23	1230			"	2	X	X					
	Pz-3	5-23	1300			"	2	X	X					
	Pz-4	5-23	1400			"	2	X	X					Pz-1 and Pz-2 have 1 broken Vial each BB

Sample Relinquished by:	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
Darrell R Anderson	5-24	10:45	[signature] SAE	5/24	10:46	

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Mountain States Analytical

The Quality Solution

Sample Chain of Custody

GEO WEST

W.O.No.: 9131.01	Project Name: Kirtland NM					Number of Containers	BTEX 602	DCA					Remarks
Sampler: Darrell R Anderson													
Sample Number	Date	Time	COMP	GRAB	Station Location								
MW-13	5-23	0600			Kirtland	2	X	X					Results to Pete Olsen
* MW-18	5-23	1100			"	2	X	X					Cancelled MW-18 (both Vials broken in shipment/SLB
MW-27	5-23	1200			"	2	X	X					replacement Vials for
MW-17	5-23	1205			"	2	X	X					MW-18, logged on
MW-22	5-23	1330			"	2	X	X					06-01-93 (G#1963) SLB
EB-1	5-23	1400				2	X	X					

Sample Relinquished by:	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
Darrell R Anderson	5/24	10:45	Fed Ex	5/24	10:46	
			[illegible] Burton	05-25-93	1:00	

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Mountain States Analytical

The Quality Solution

Sample Chain of Custody

GEOWEST

W.O.No: 9080.06 Project Name: KIRTLAND NM

Sampler: Daniel R Anderson

	Sample Number	Date	Time	COMP	GRAB	Station Location	Number of Containers	BTEX	DCA					Remarks
Log	EB-1	5-28	0845		X	KIRTLAND	2	X	X					Replacement for Vials broken in Transit.
Hold 1925	Pz.1	5-28	0900		X	"	3	X	X					
Hold 1925	Pz-2	5-28	1000		X	"	3	X	X					
														Log EB-1 other samples are extra samples (see G# 1925) will hold PZ-1 + PZ-2 SW

Sample Relinquished by:	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
Daniel R Anderson	06/1/93	0840	[signature]	06/01/93	0840	analysis

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The Quality Solution

Sample Chain of Custody

W.O.No. 9131.01 | Project Name: KIRTLAND NM

Sampler: Darrell R Anderson

Sample Number	Date	Time	COMP	GRAB	Station Location	Number of Containers	BTEX	DCA					Remarks
Left MW-18	5-28	1030		X	KIRTLAND	3	X	X					Check with GC.
Hold MW-21	5-28	1130		X	"	3	X	X					Samples are Back up for Samples Broken in Shipment.
													MW-18 broken in Shipment (G# 1924) logged on 06-01-93/SLB
													(other sample is extra sample (see G# 1923) with hold sample SLB

1923

Sample Relinquished by:	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
Darrell R Anderson	5-1-93	0840		06/01/93	0842	

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Mountain States Analytical

The Quality Solution

Sample Chain of Custody

GEO WEST

W.O.No: 9131.01 | Project Name: KIRTLAND NM

Sampler: Darrell R Anderson

Sample Number	Date	Time	COMP	GRAB	Station Location	Number of Containers	BTEX	DCA					Remarks
MW-20	5-22	10:30			KIRTLAND	2	X	X					Results to Pete Olsen
MW-15	5-22	1050			"	2	X	X					
MW-10	5-22	1100			"	2	X	X					
MW-19	5-22	11:15			"	2	X	X					
MW-9	5-22	1300			"	2	X	X					
MW-16	5-22	1330			"	2	X	X					
* MW-21	5-22	14:30			"	2	X	X					Unofficial, However I outta Lab well sent on this sample/s
MW-2	5-22	1710			"	2	X	X					
MW-1	5-22	1745			"	2	X	X					
MW 14	5-22	1345			"	2	X	X					

Sample Relinquished by:	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
Darrell R Anderson	5-24	10:45	Fed Ex	5/24	10:40	
			Sherry Burton	05/25/93	1:00	

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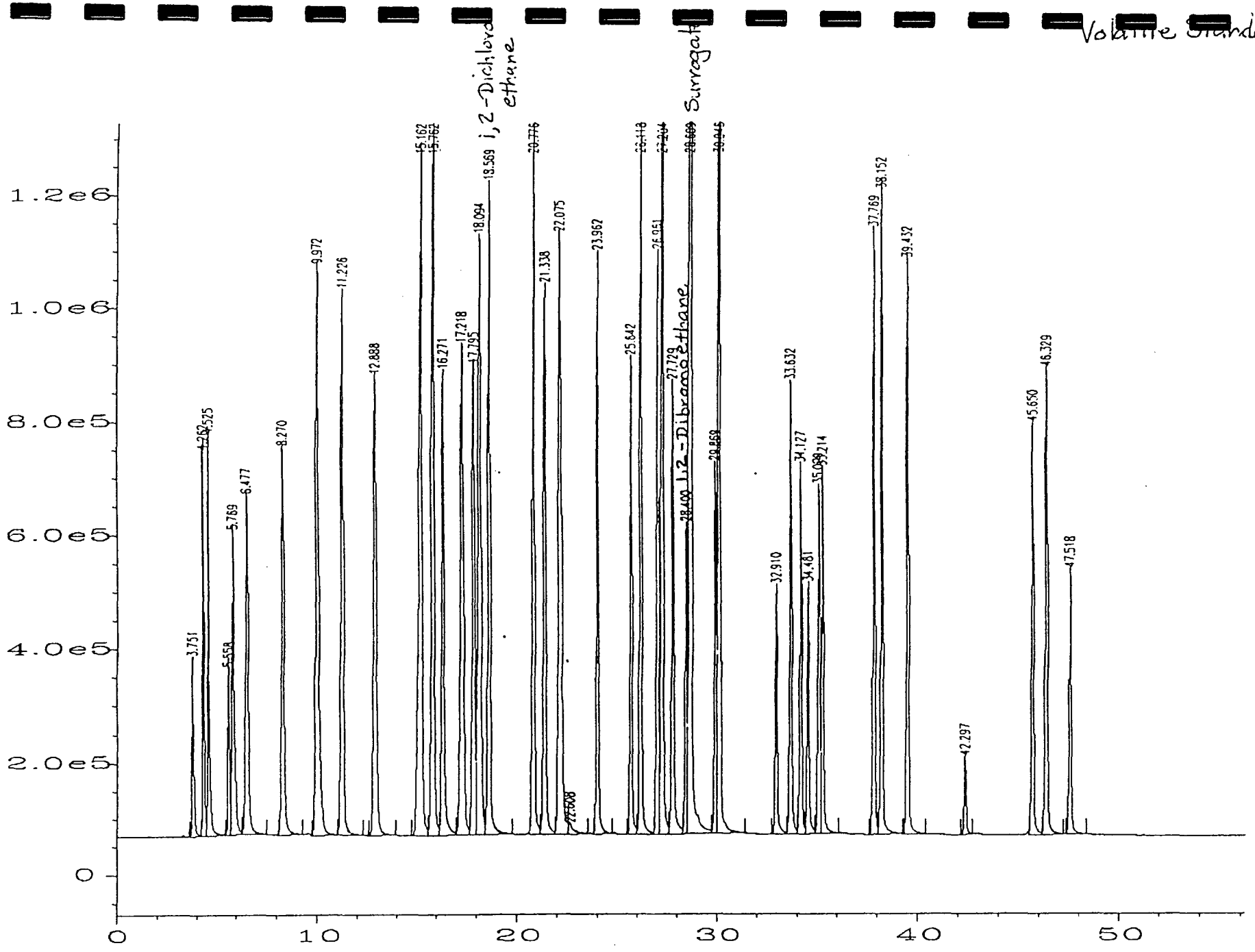
Volatile Standard



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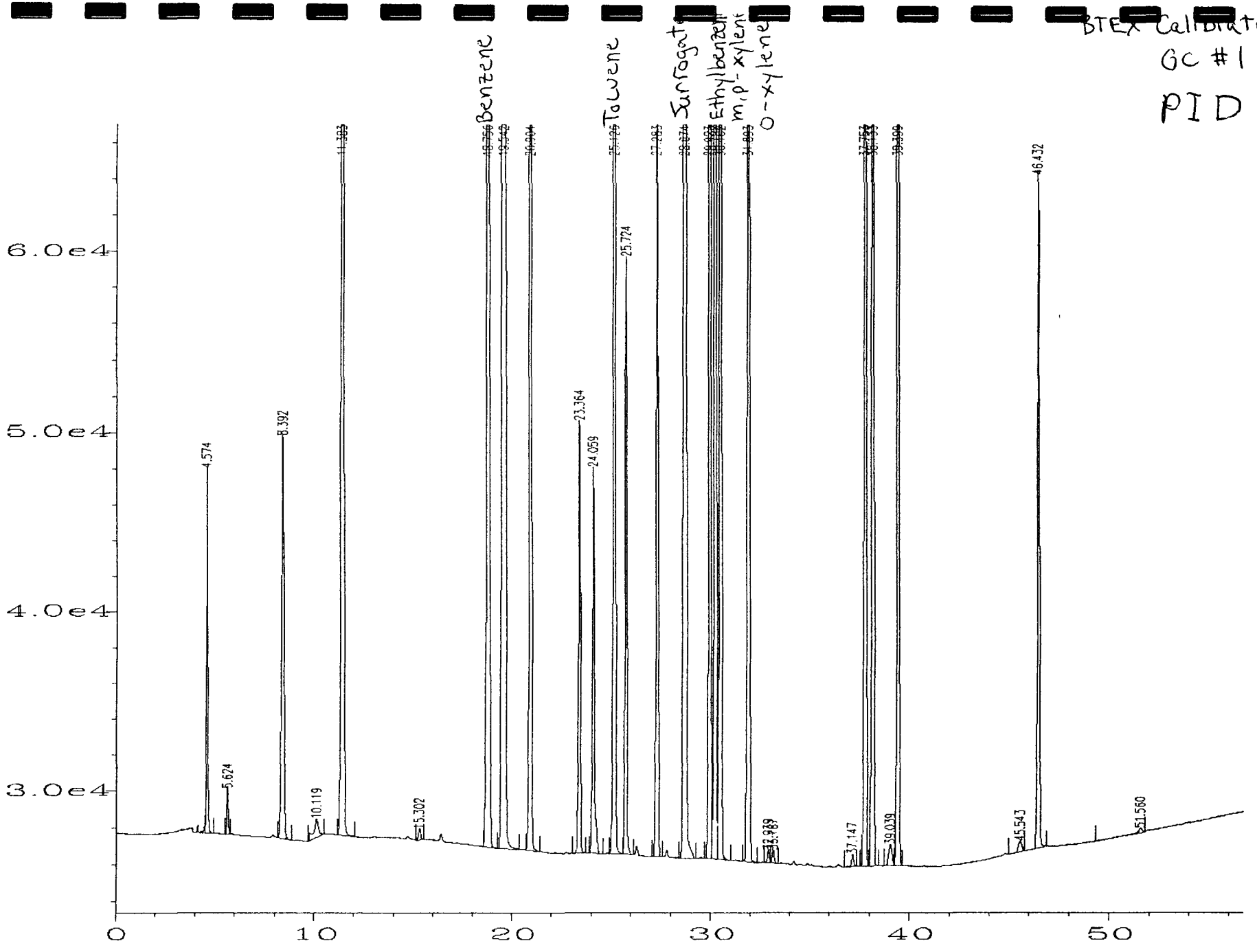

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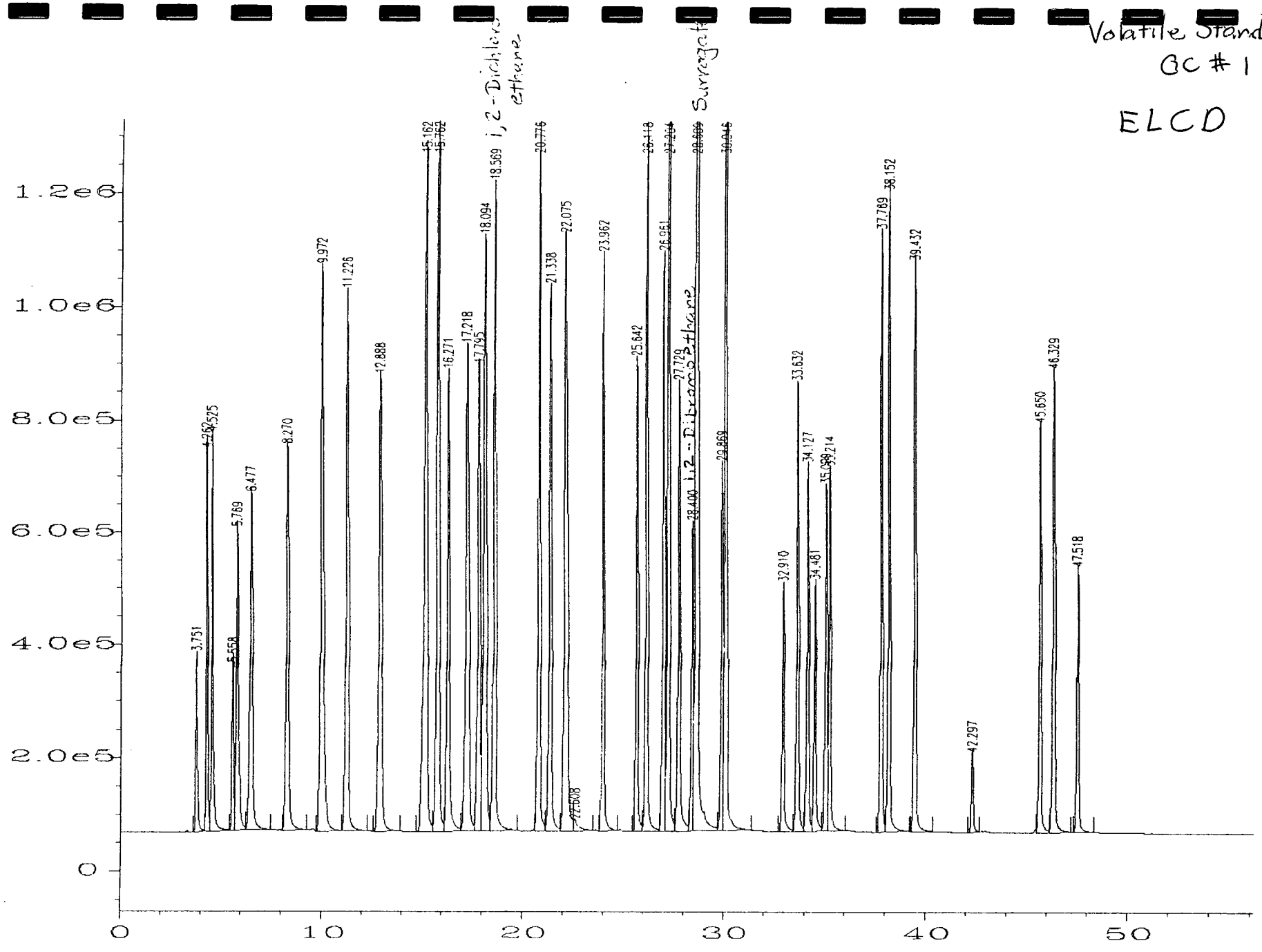
Volatile Standard
GC #1

ELCD



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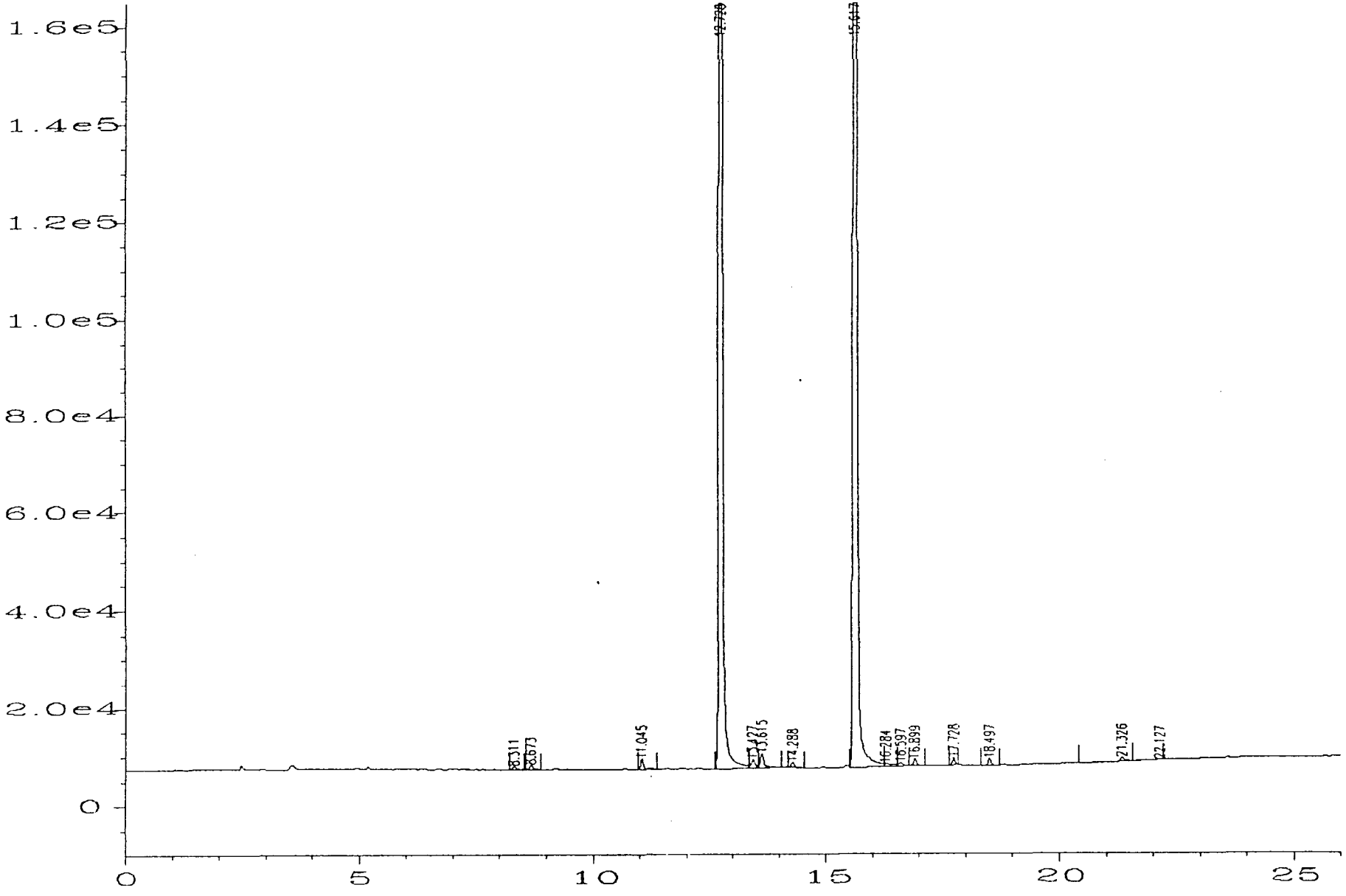
Sample # 8686 DF 1
(MW-10)



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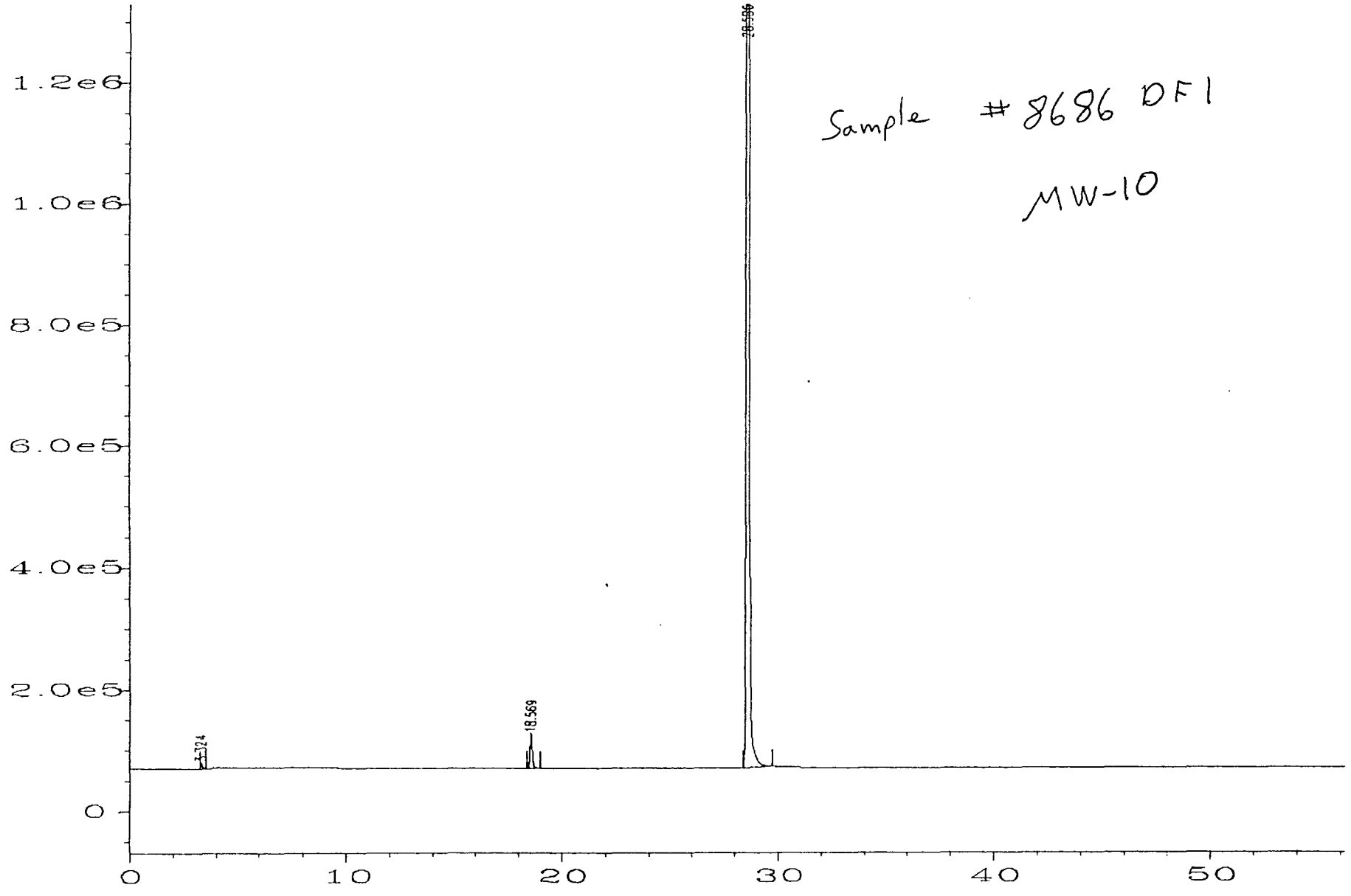

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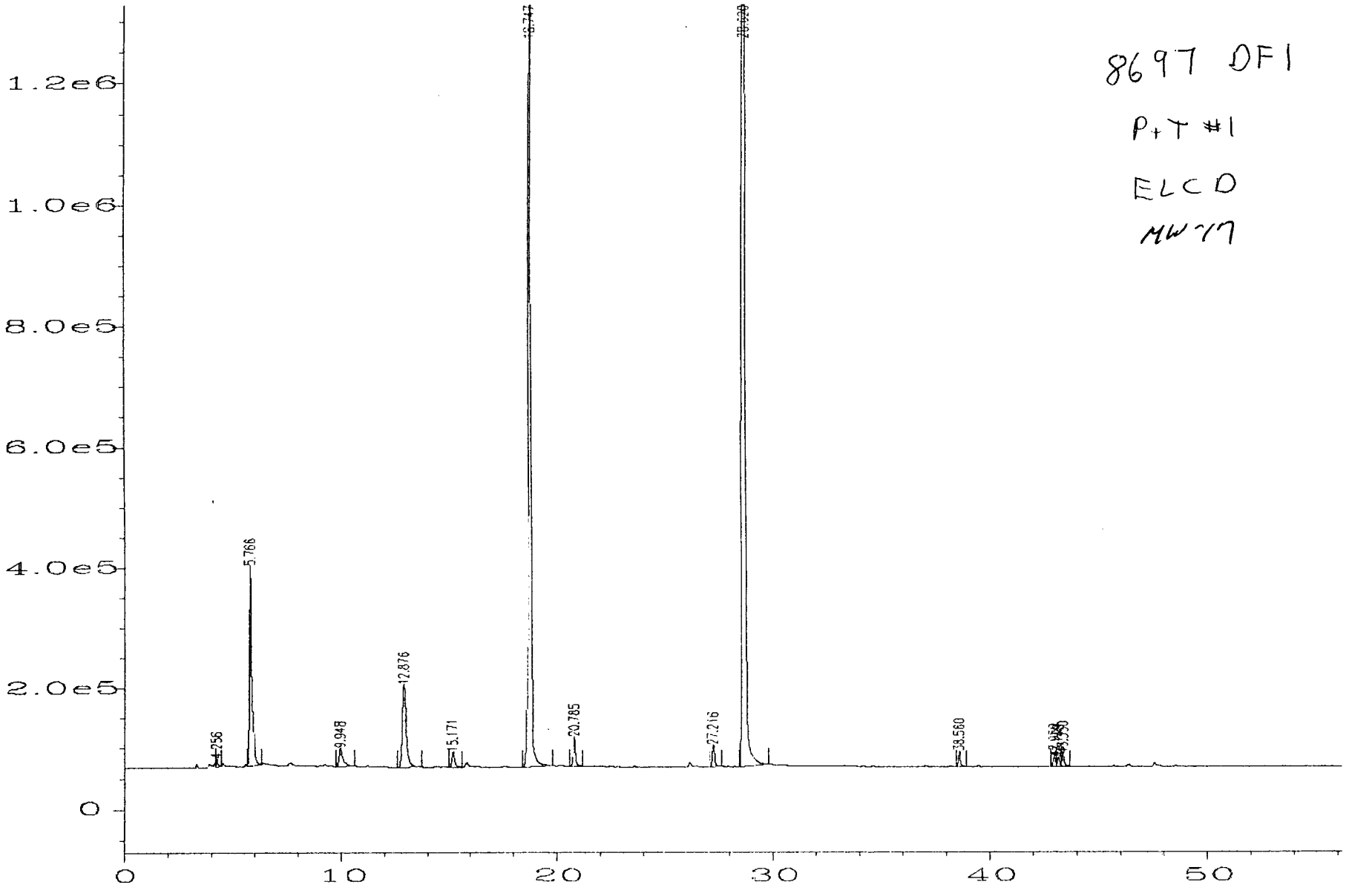

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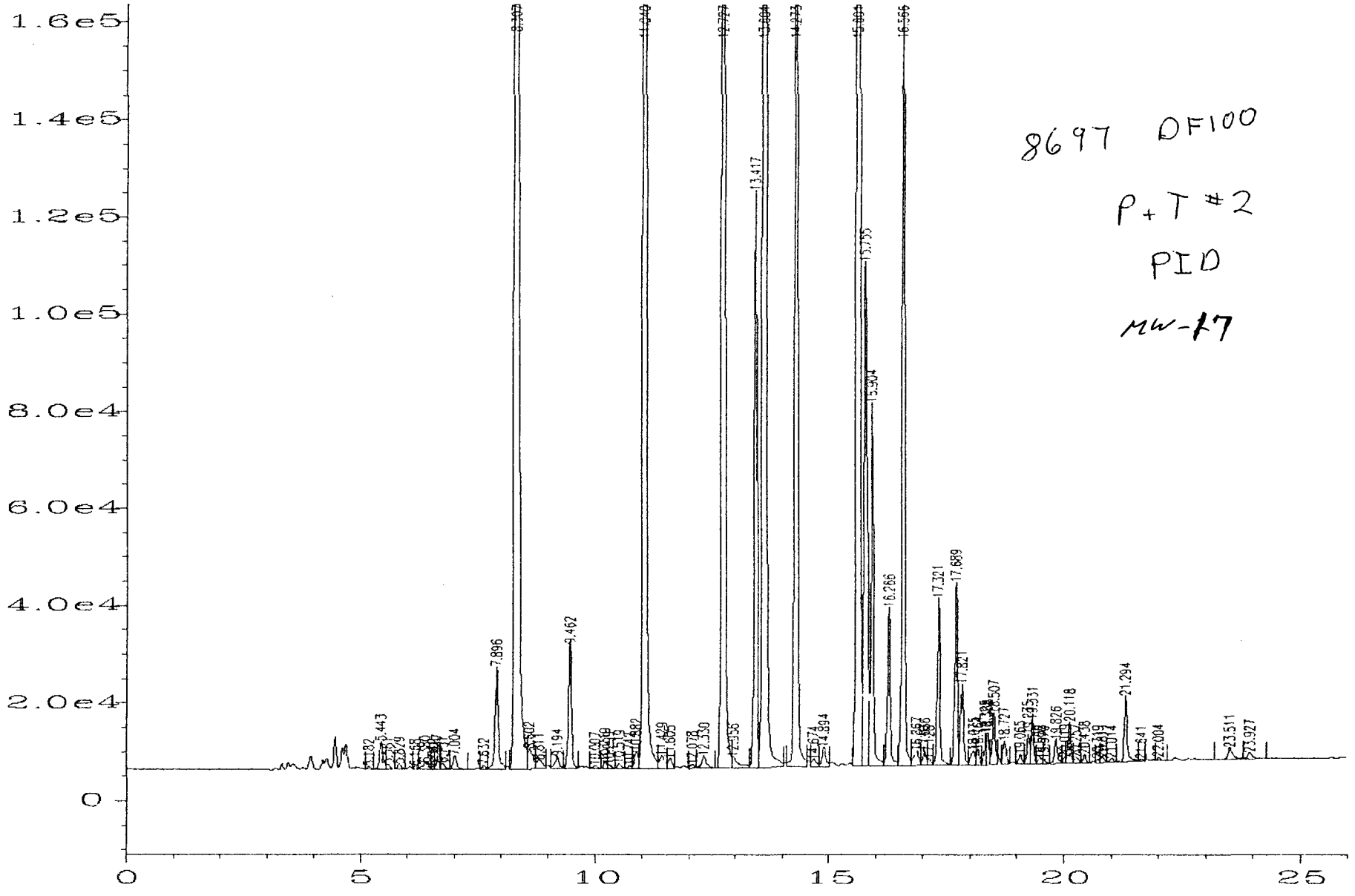

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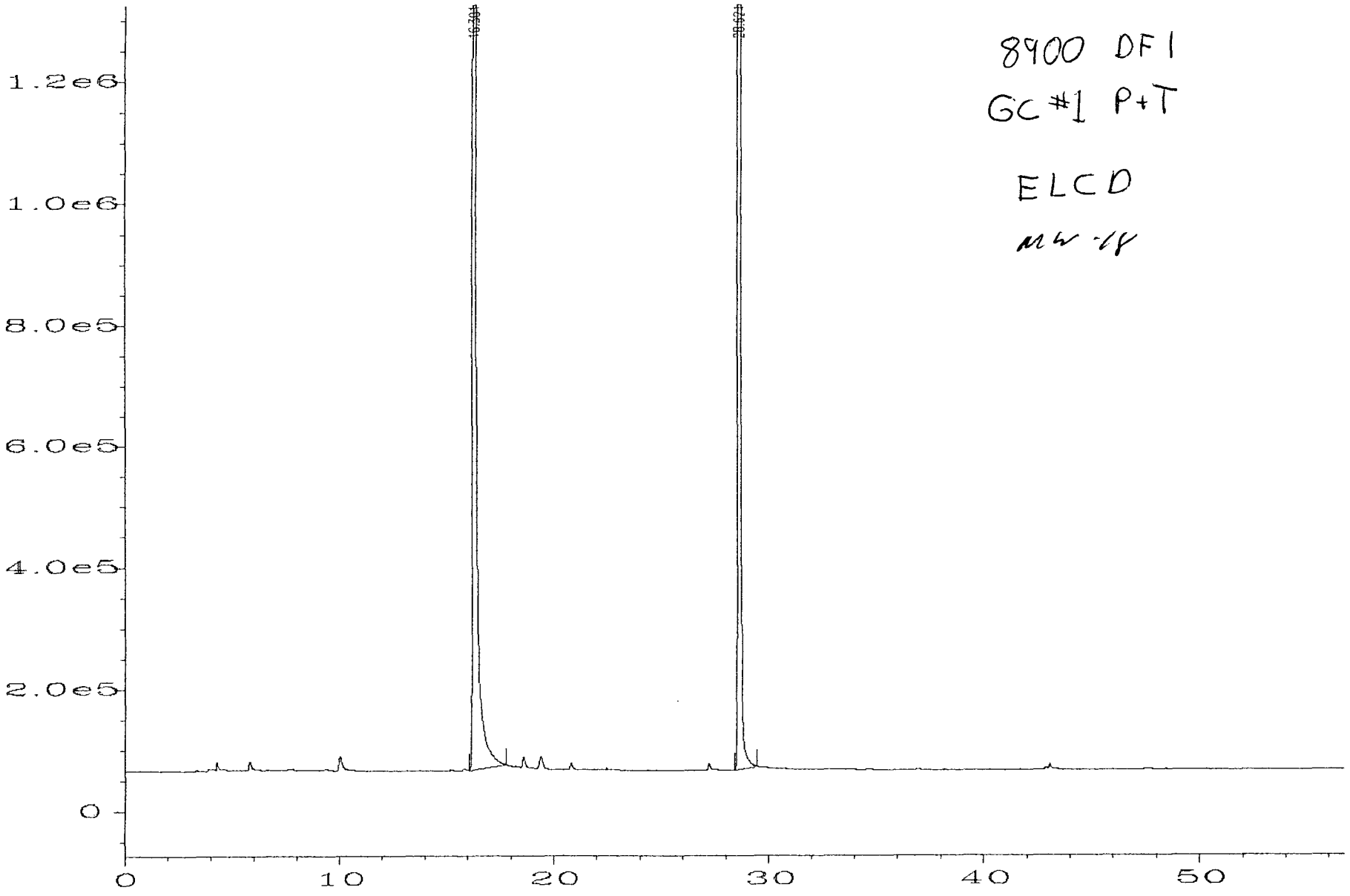

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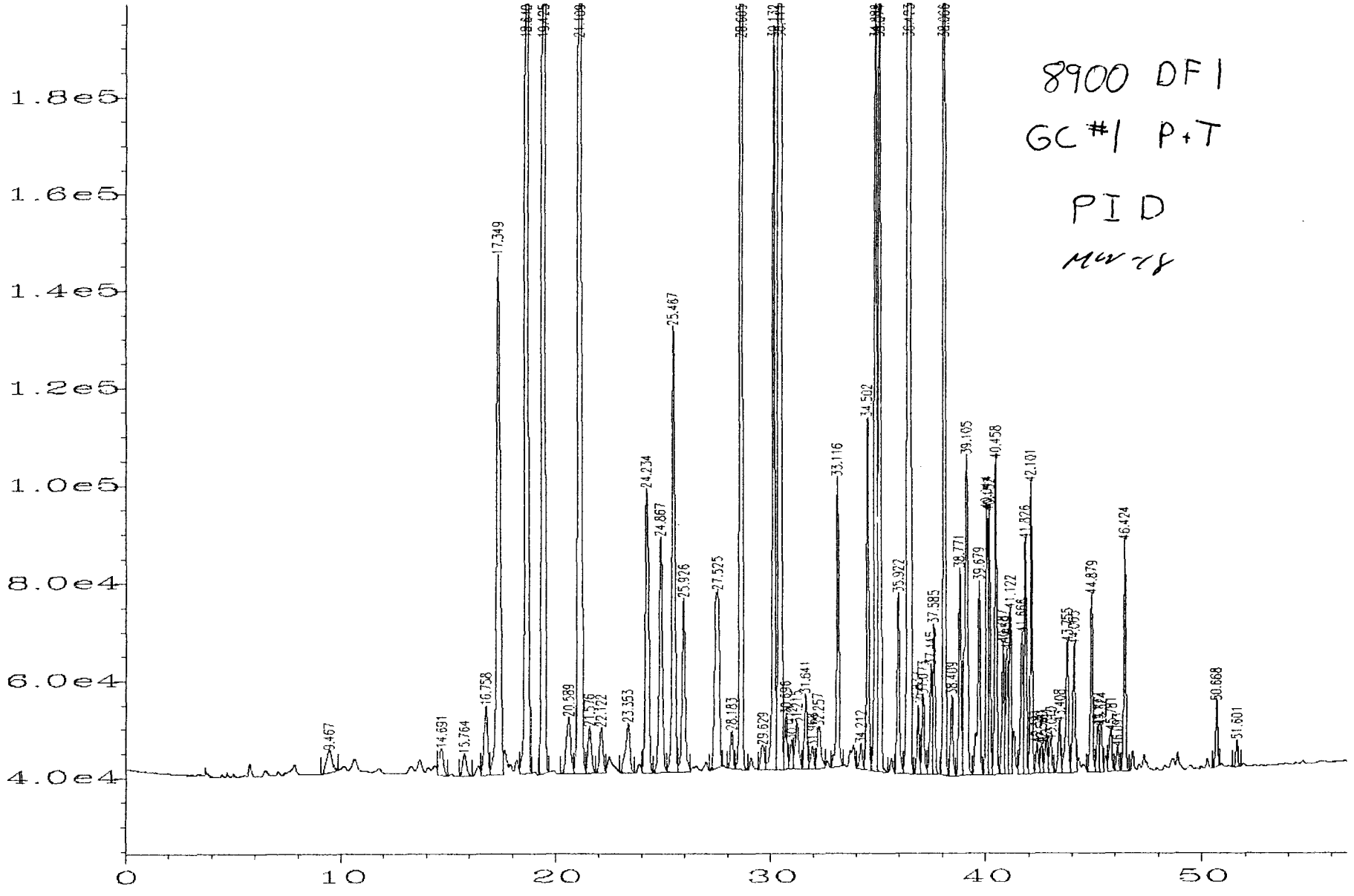

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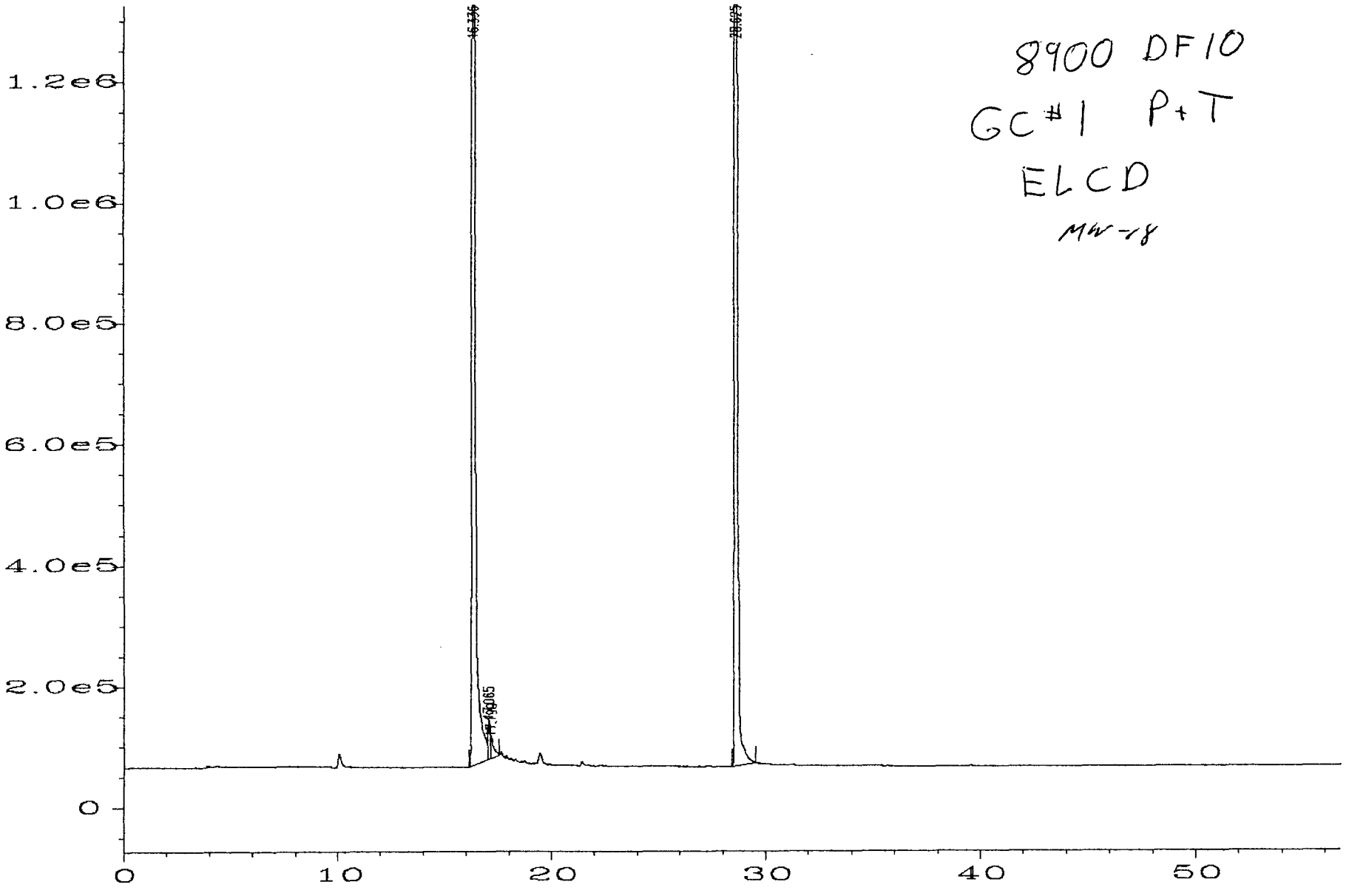

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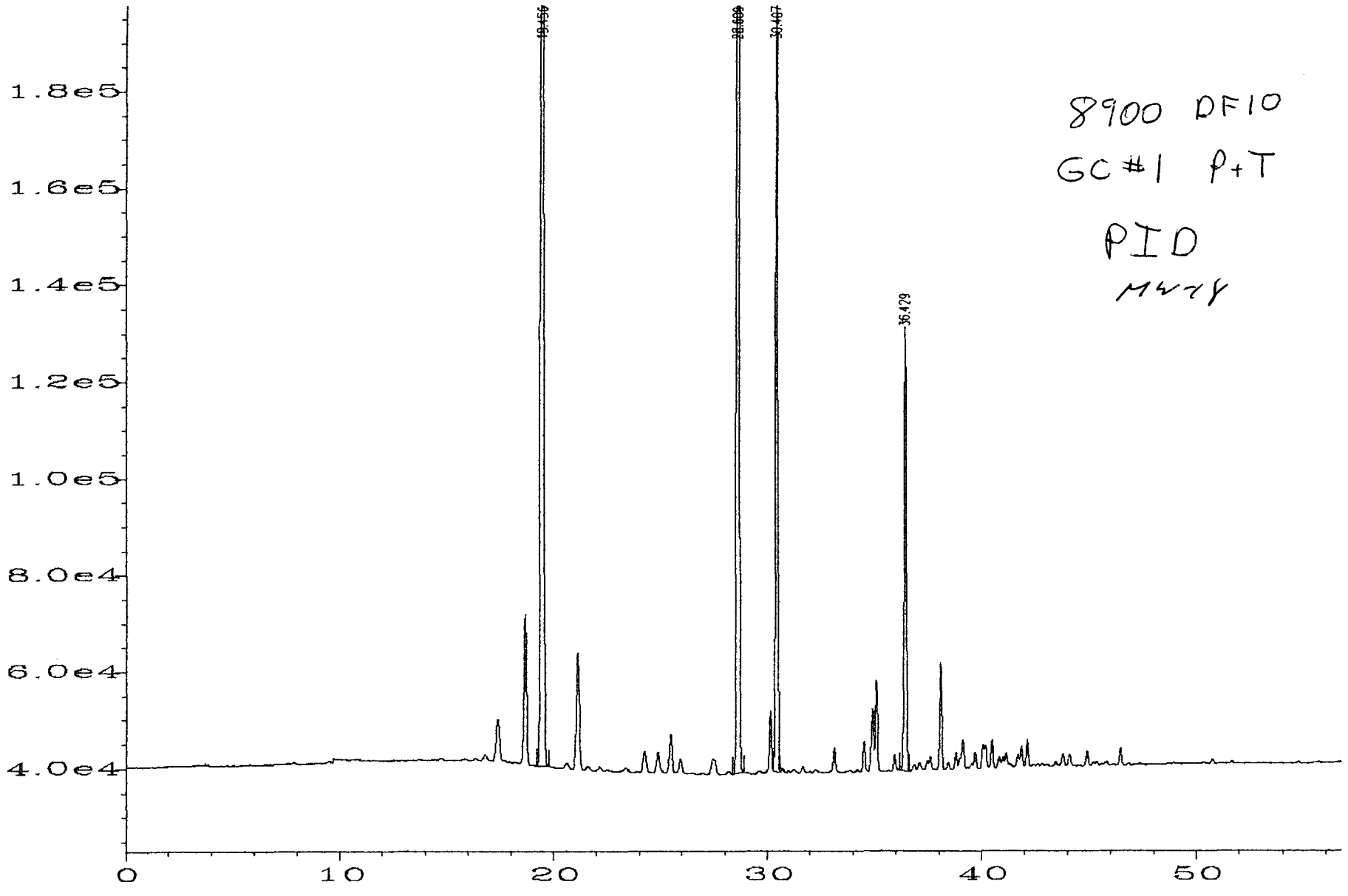

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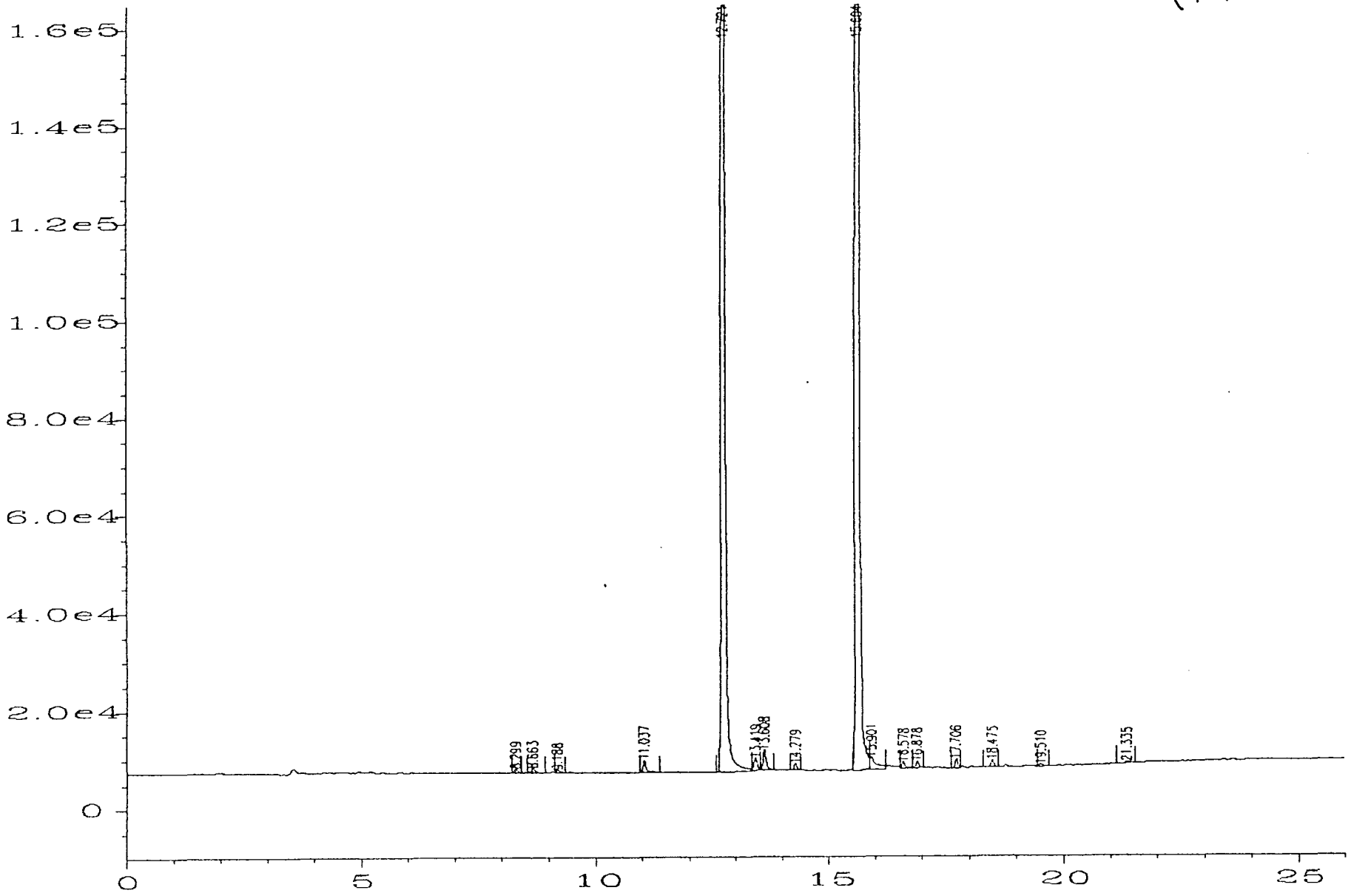
Sample # 8687 of 1
(mw-19)



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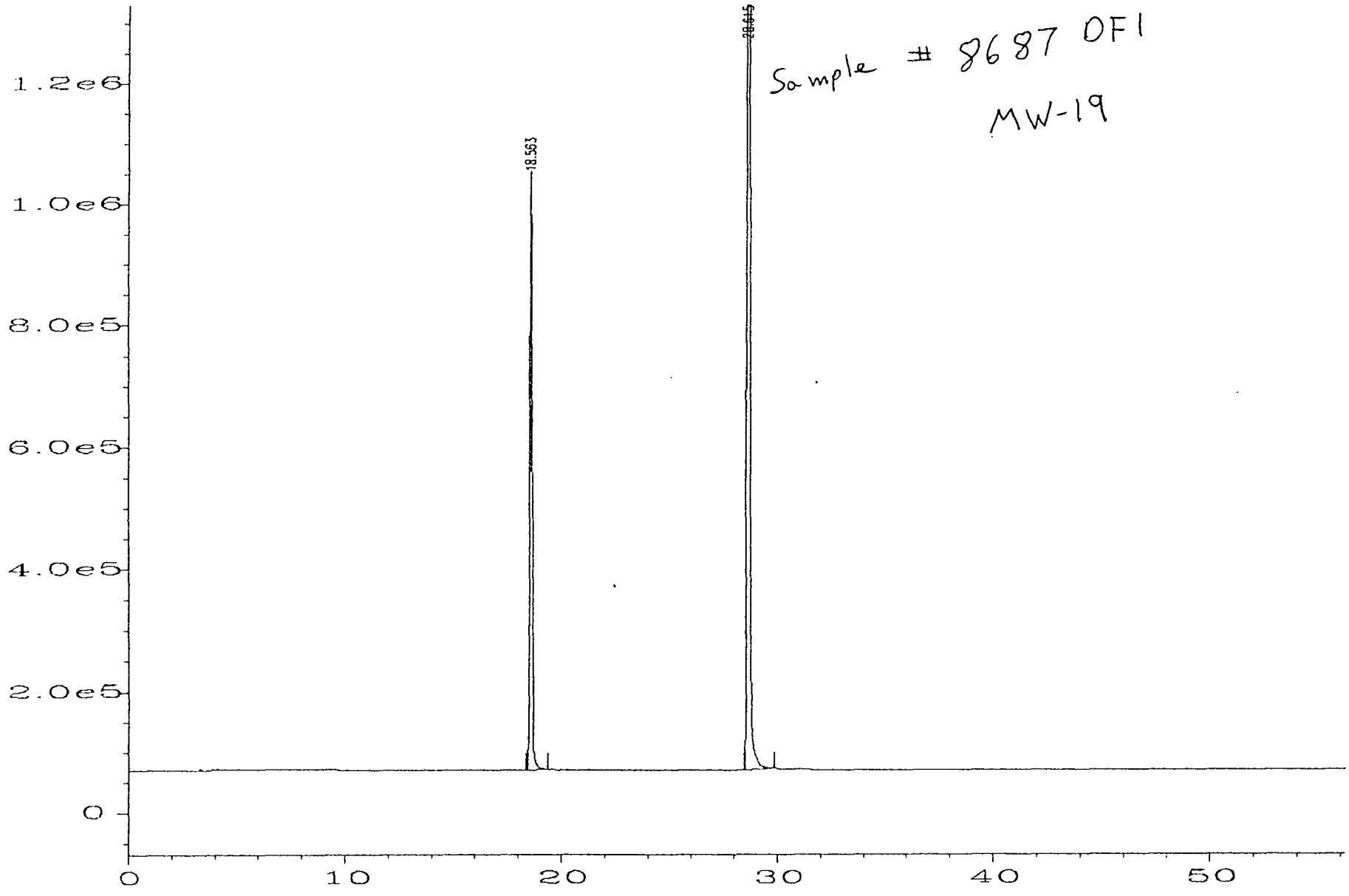

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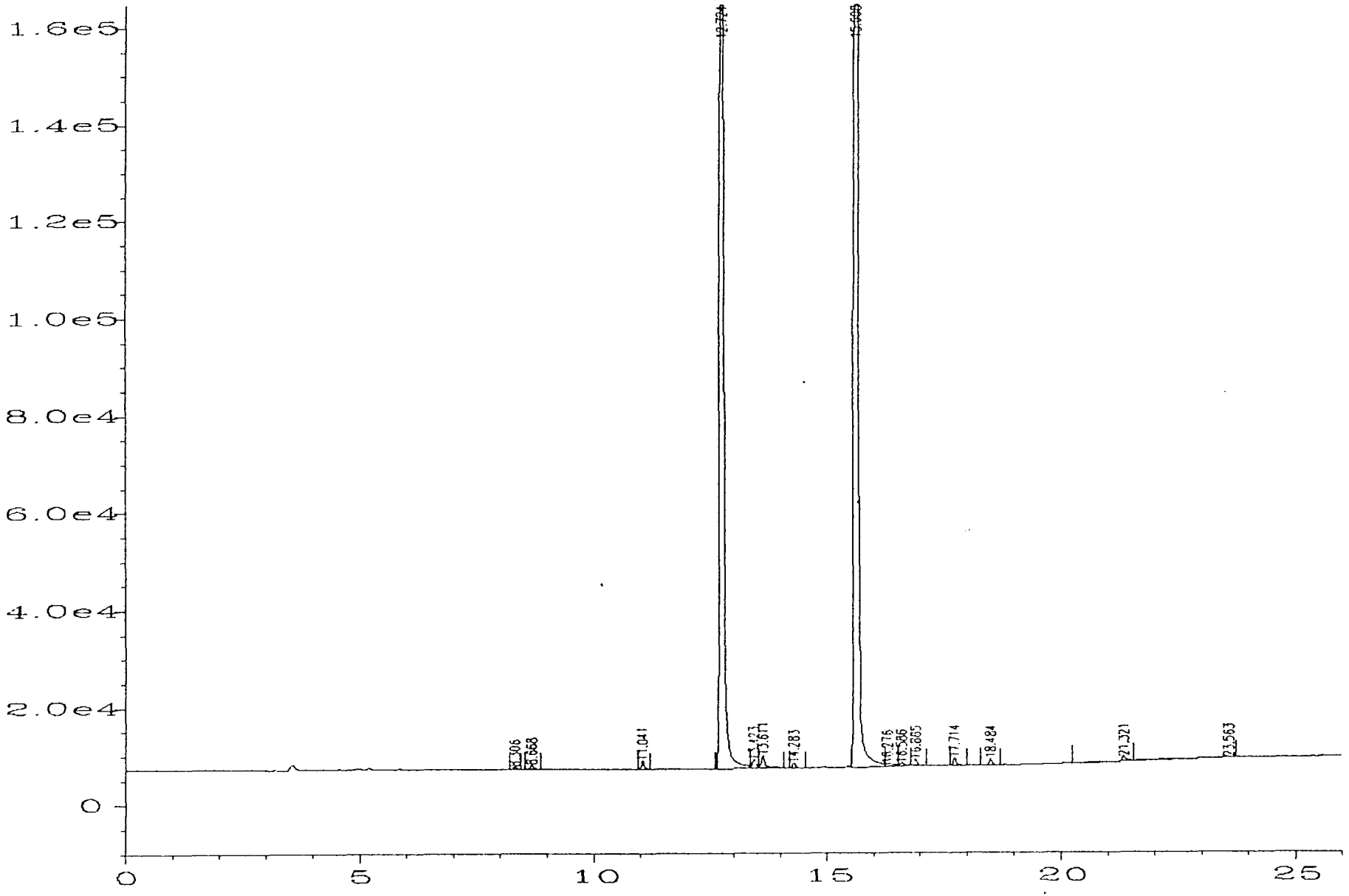
Sample #8684DF1

(MW-20)



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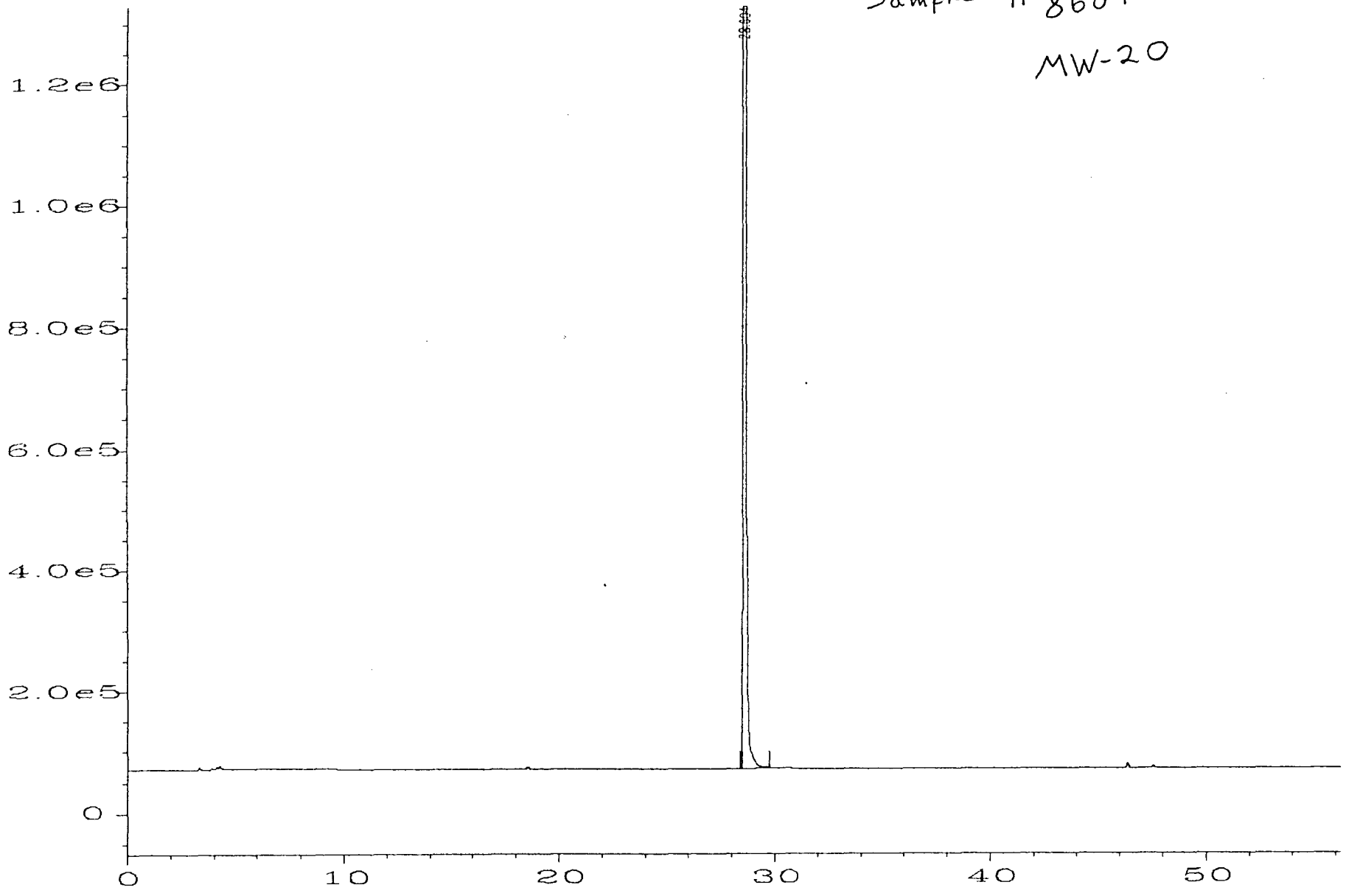
Sample # 8684 DF 1

MW-20



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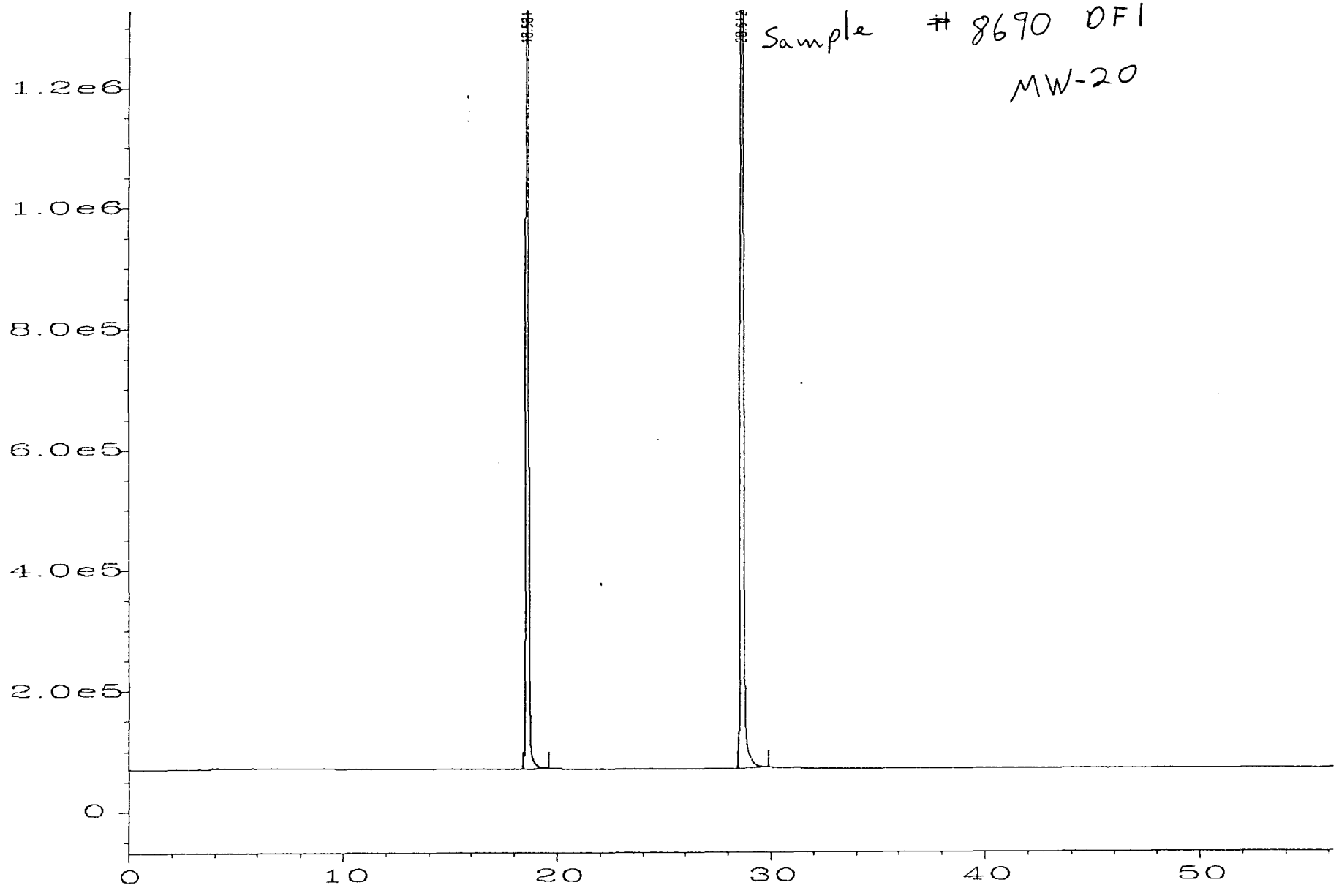

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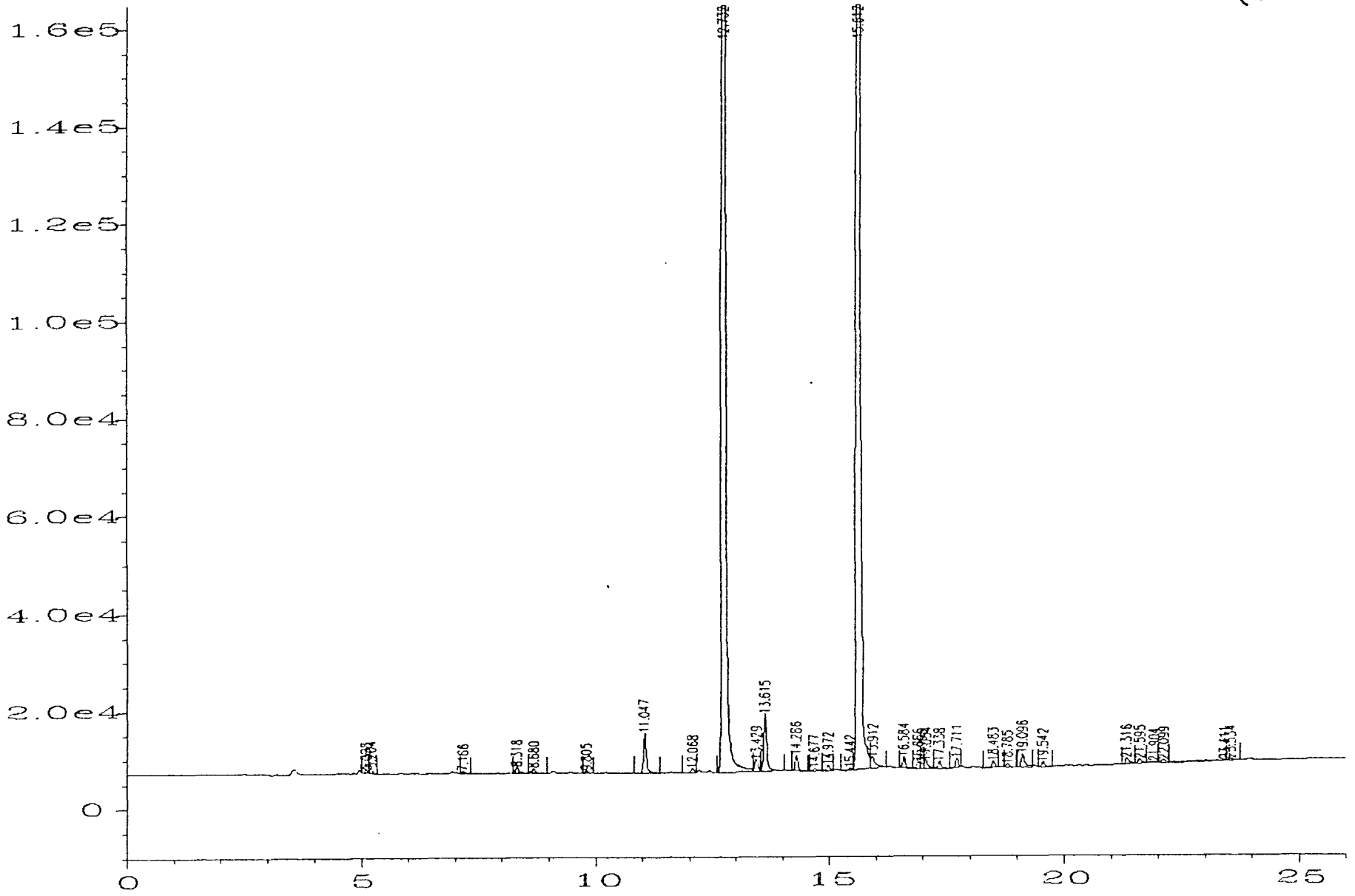
Sample # 8690 DF 1
(mw-21)



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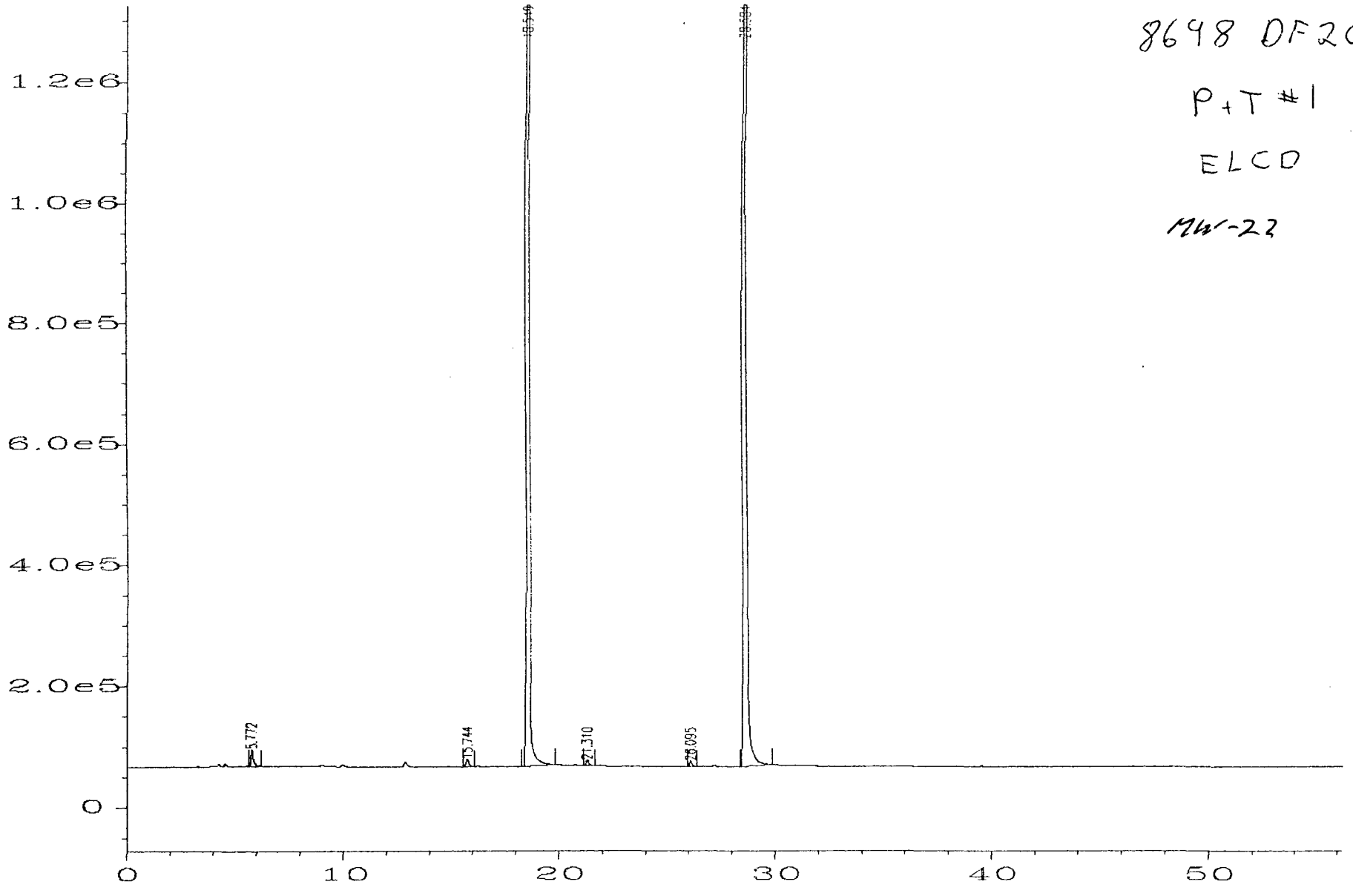

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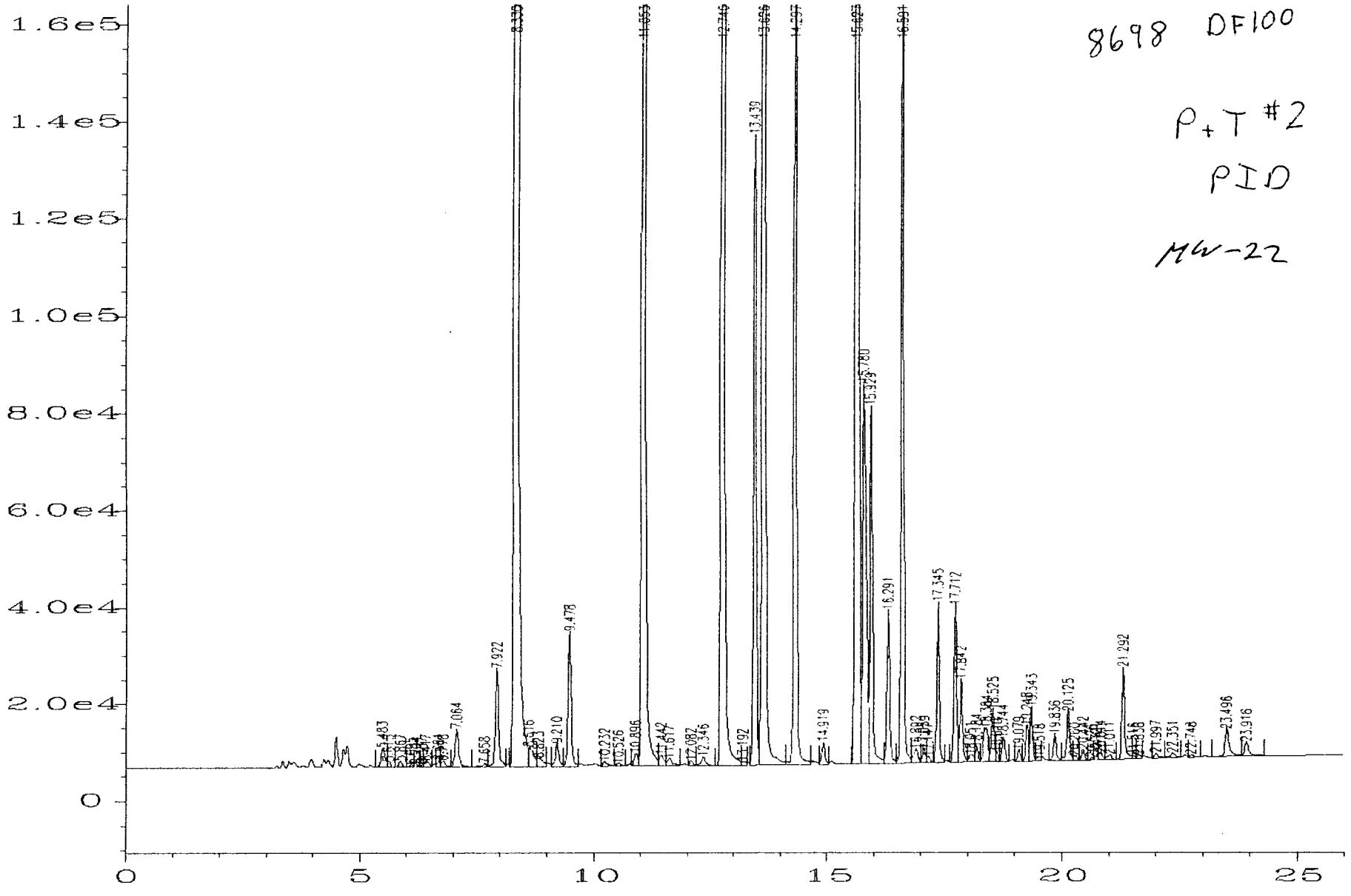

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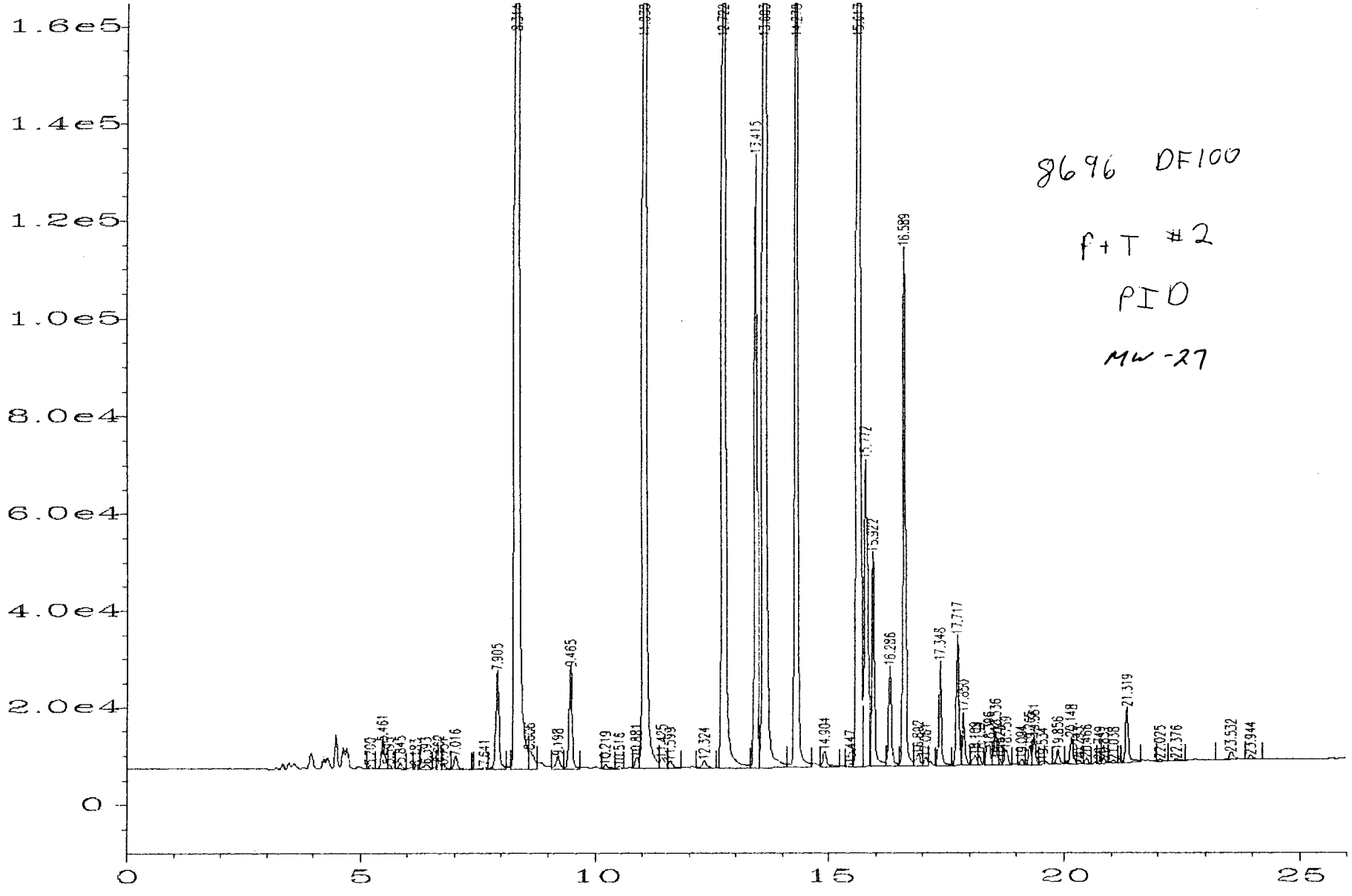

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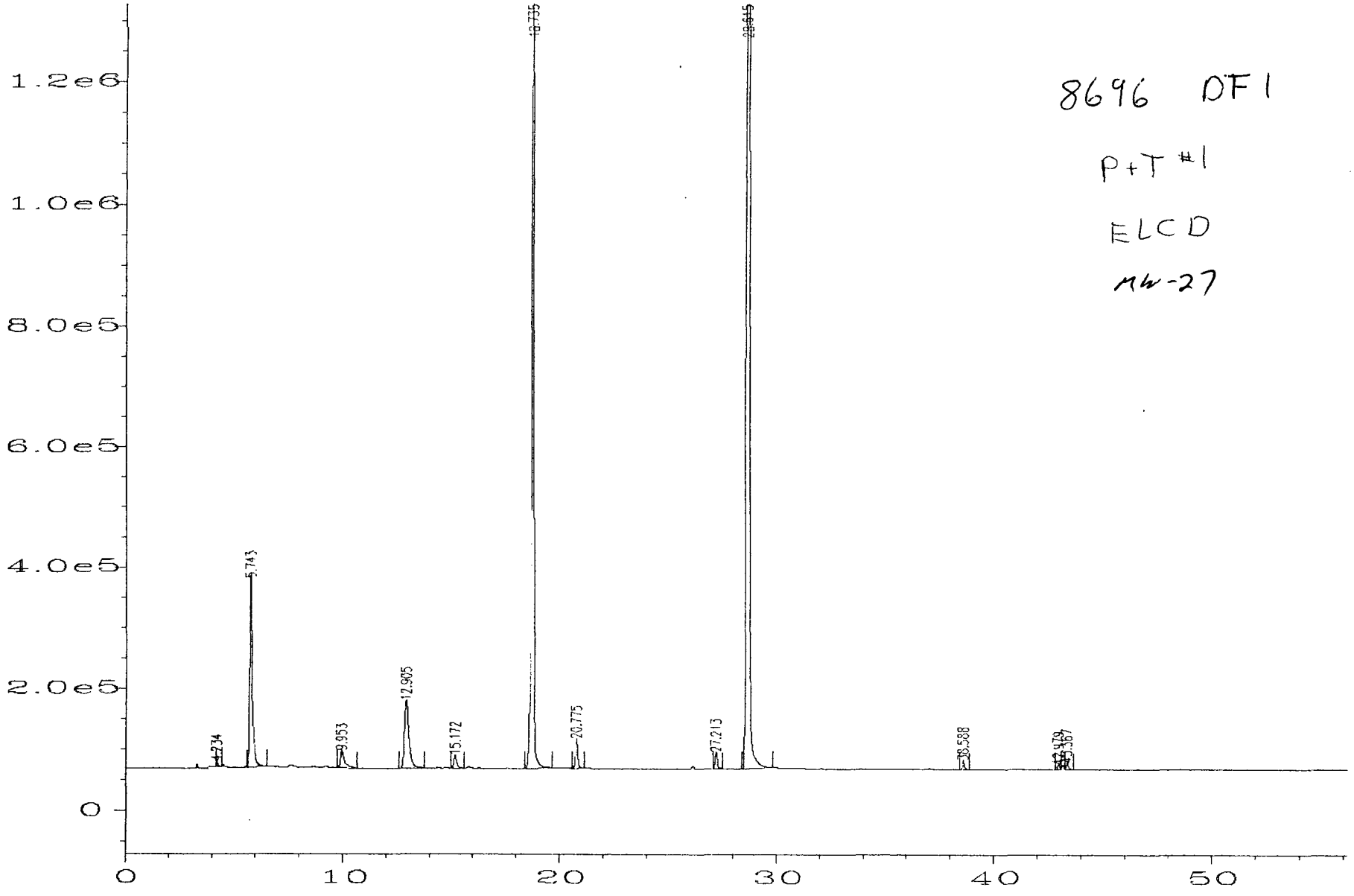

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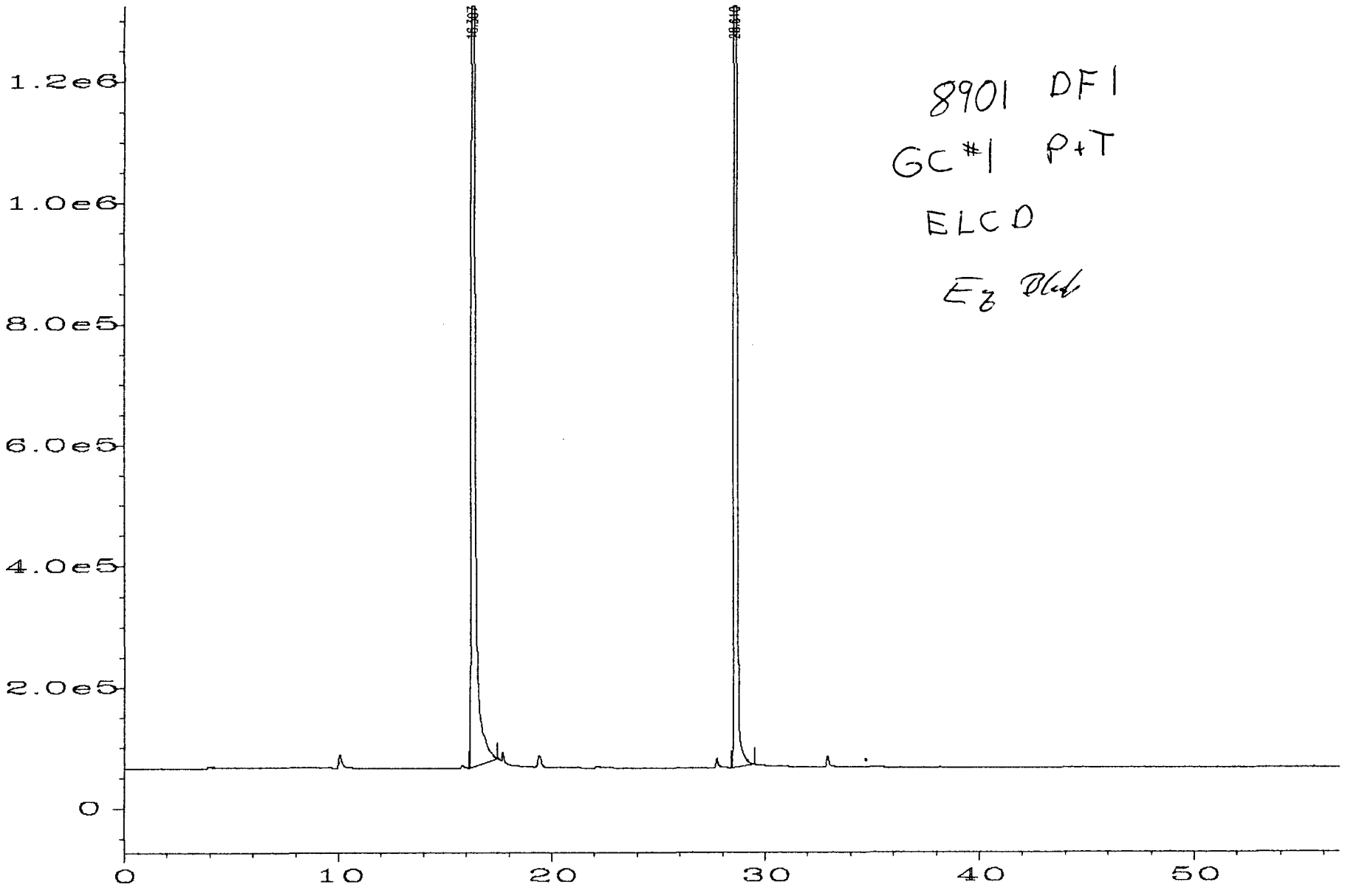

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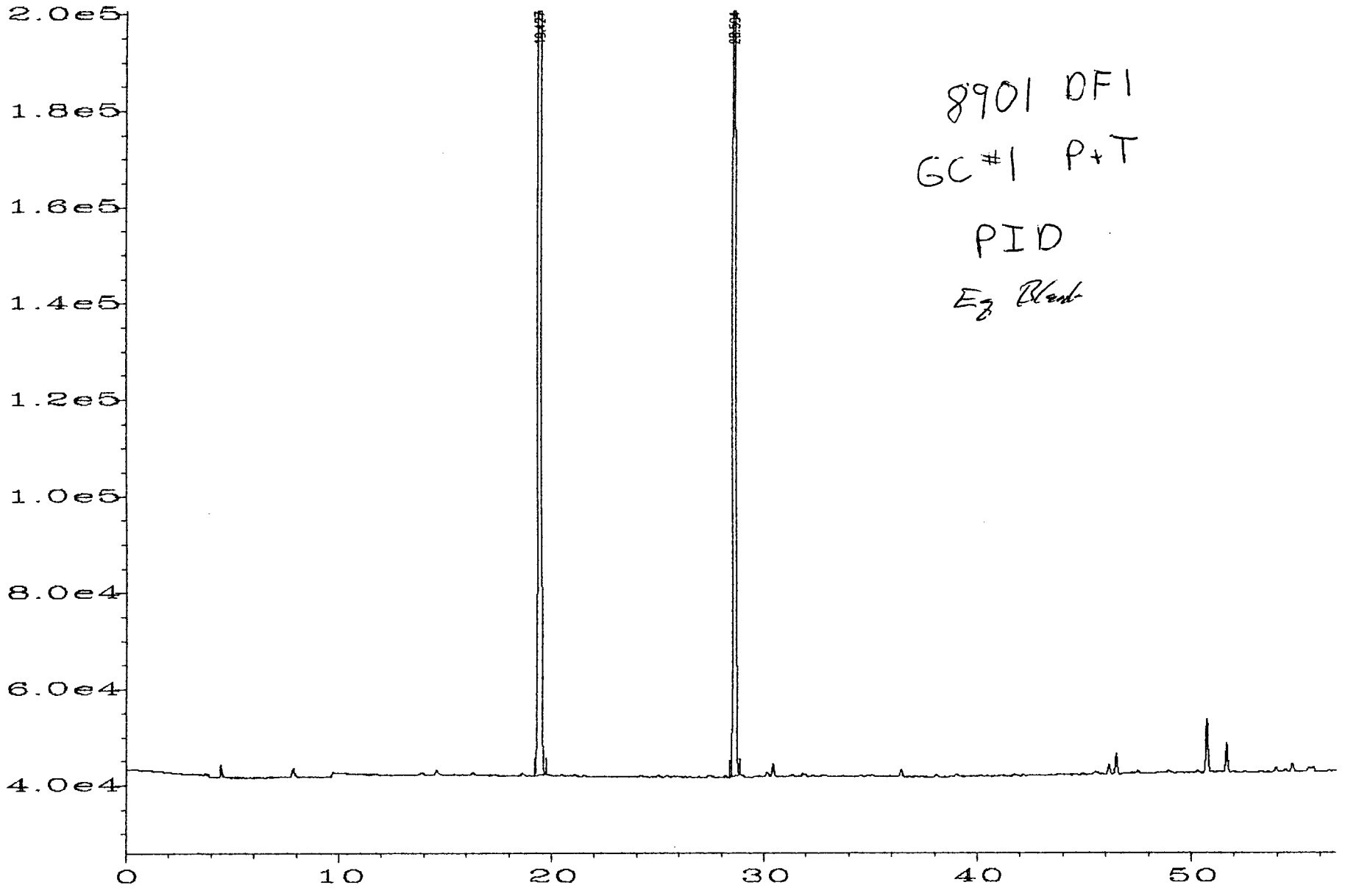

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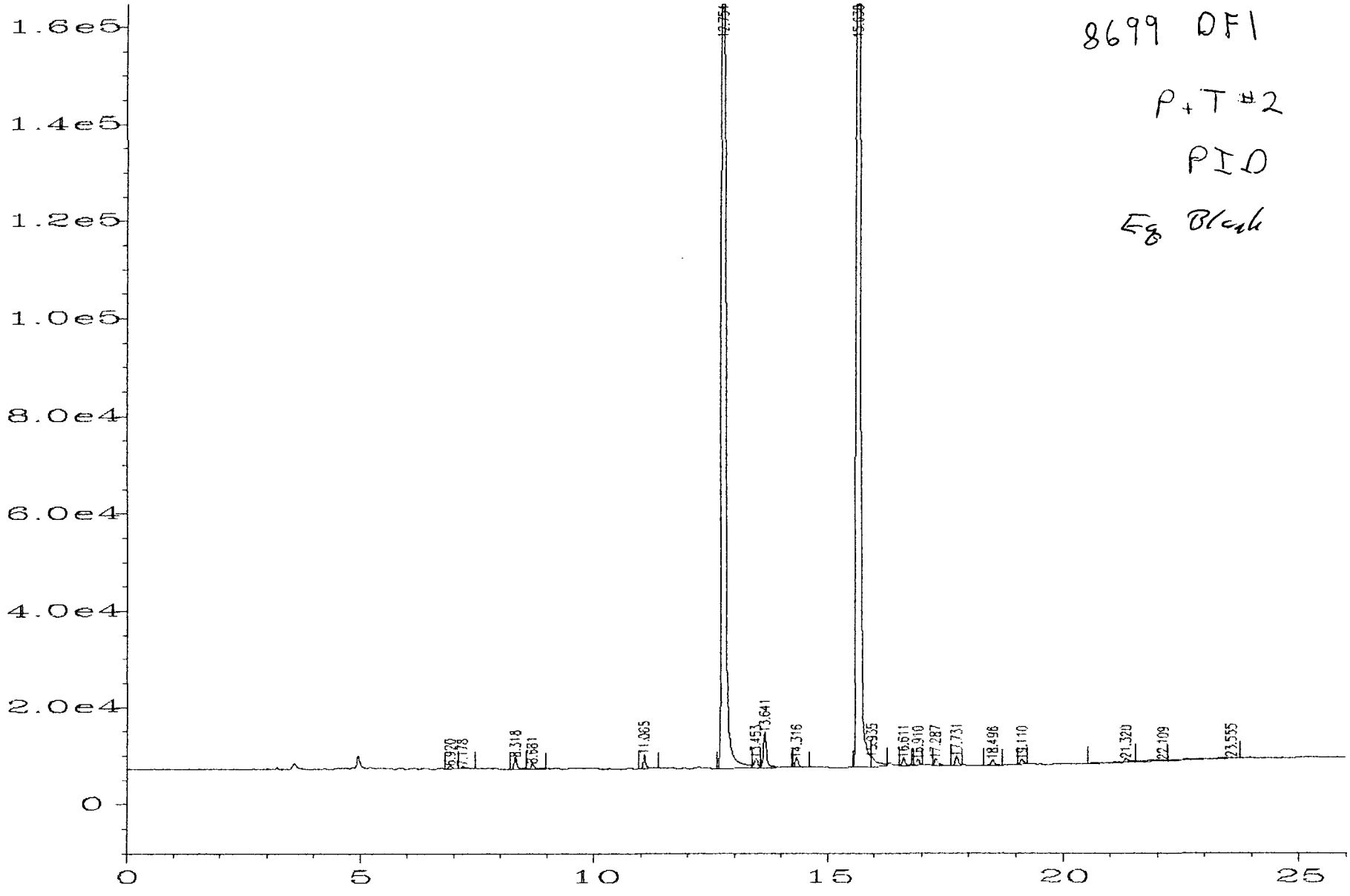

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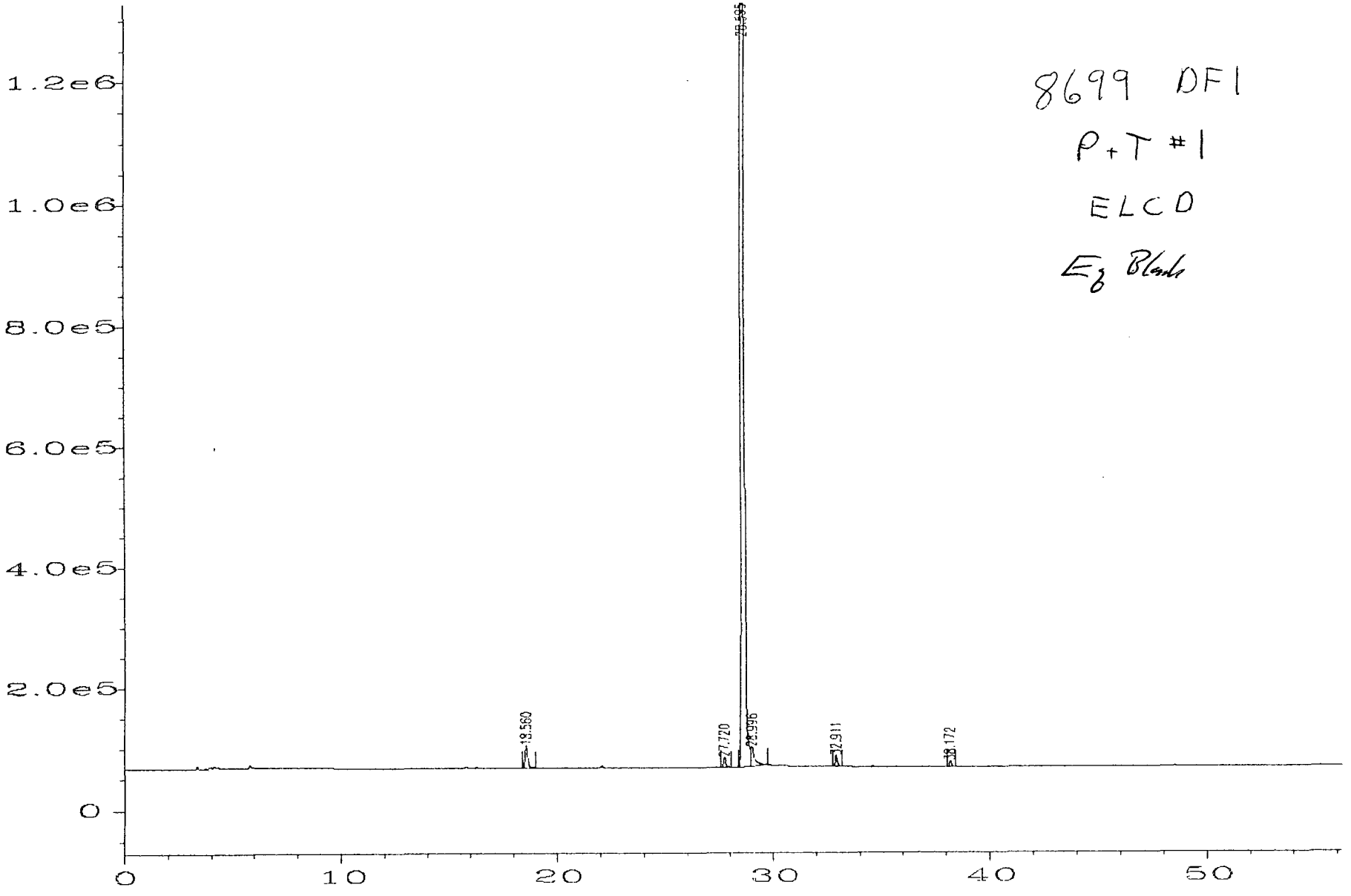
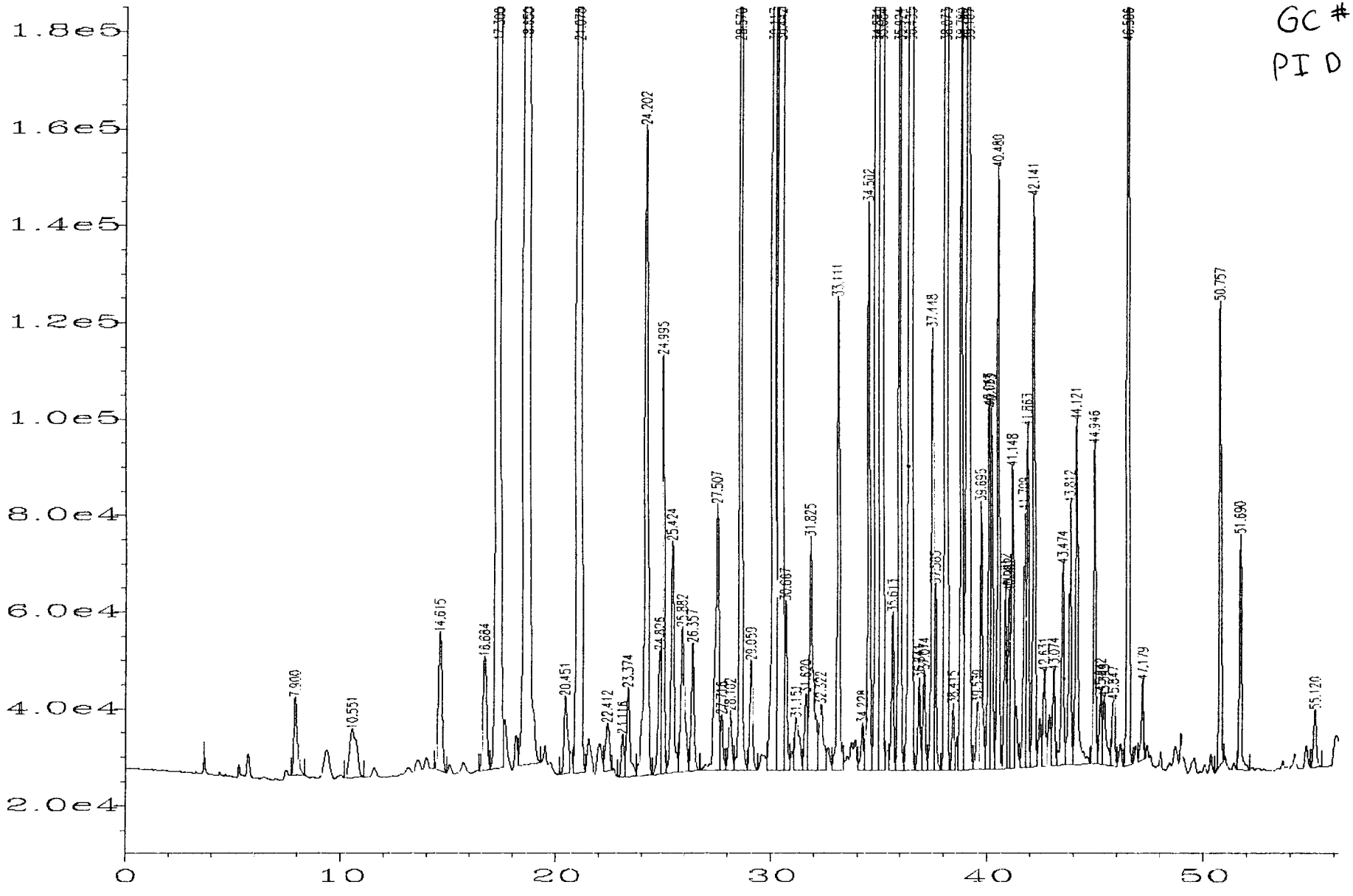


8699 DF1
P+T #1
ELCD
Eg Blank

Sig. 1 in C:\HPCHEM\1\DATA\WS32AUD\067F0101.D

Sample 8700 DF1
(PZ-1)
GC#1
PID



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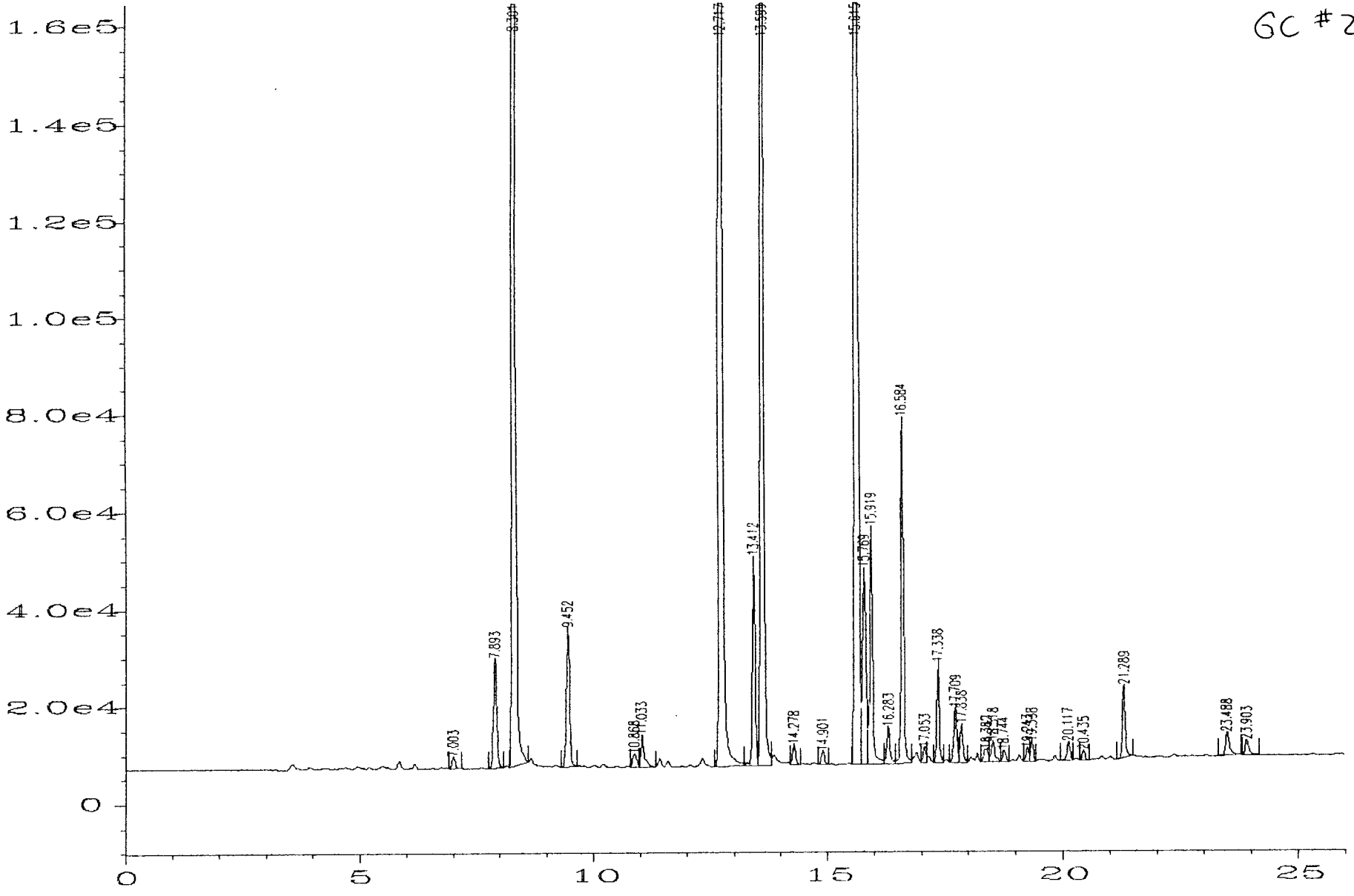
Sample # 8700 DF100
(PZ-1)
GC #2



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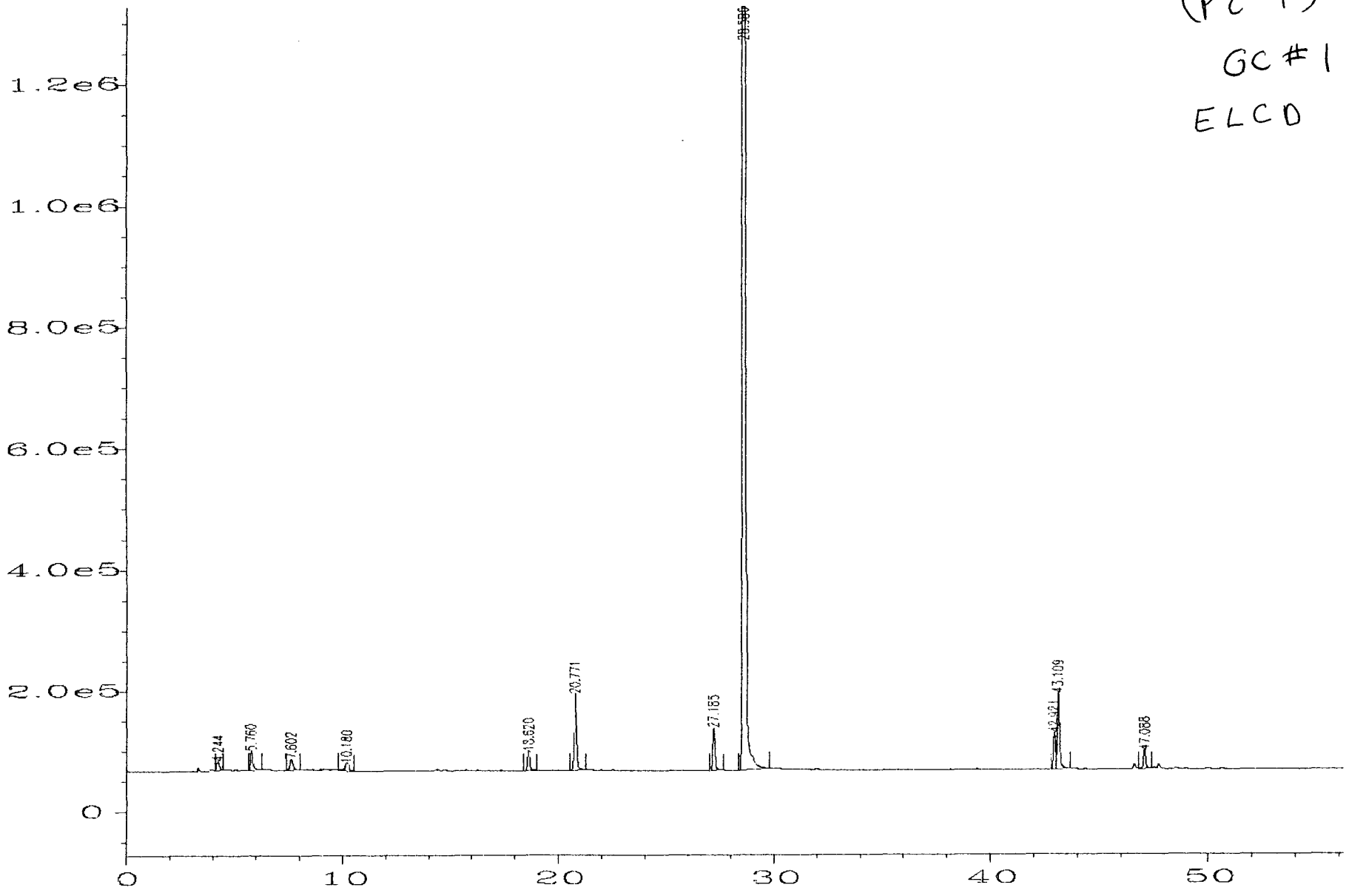
Sample # 8700 DF1
(PZ-1)
GC #1
ELCD



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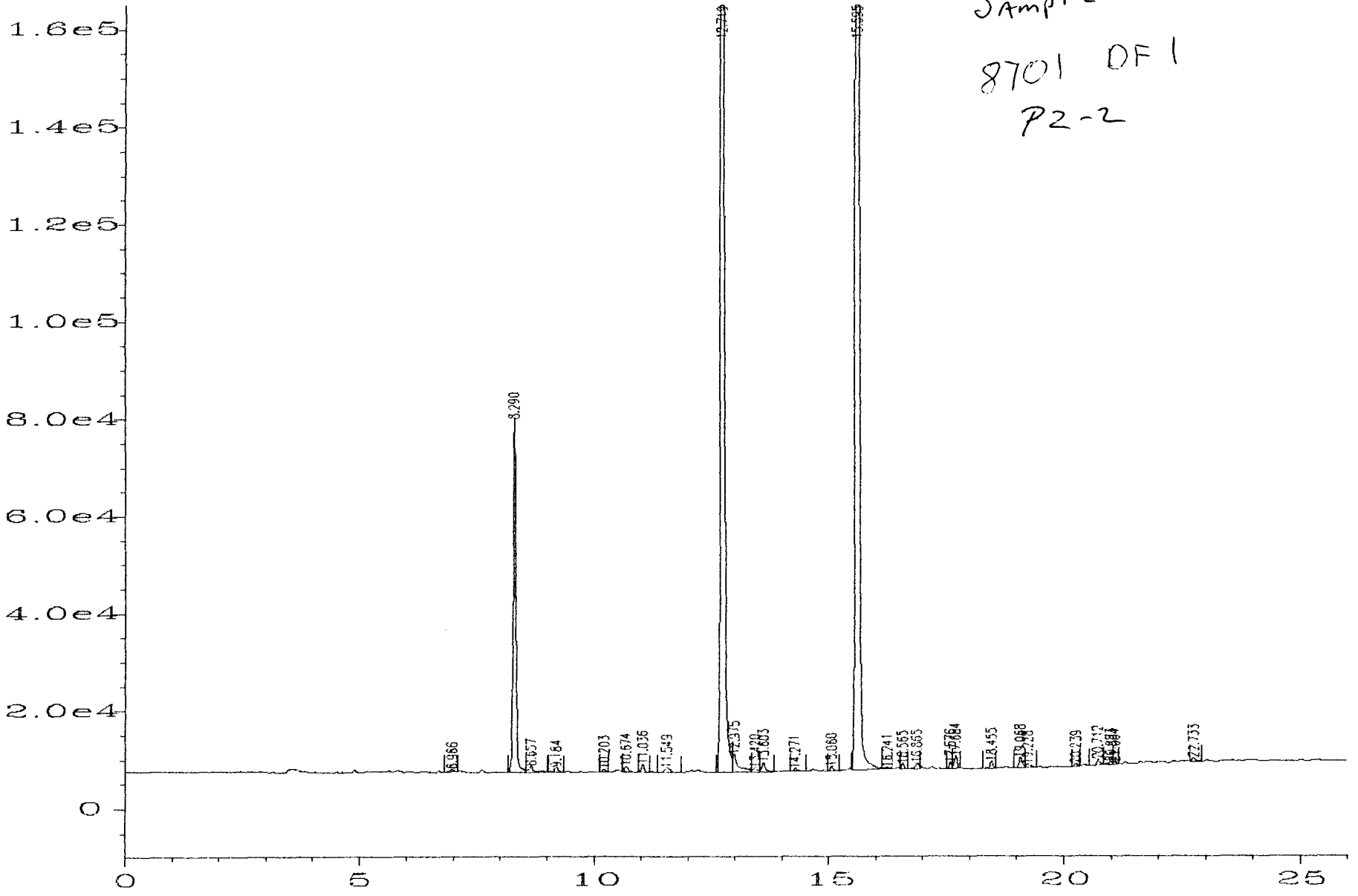
Sample #
8701 OF 1
P2-2



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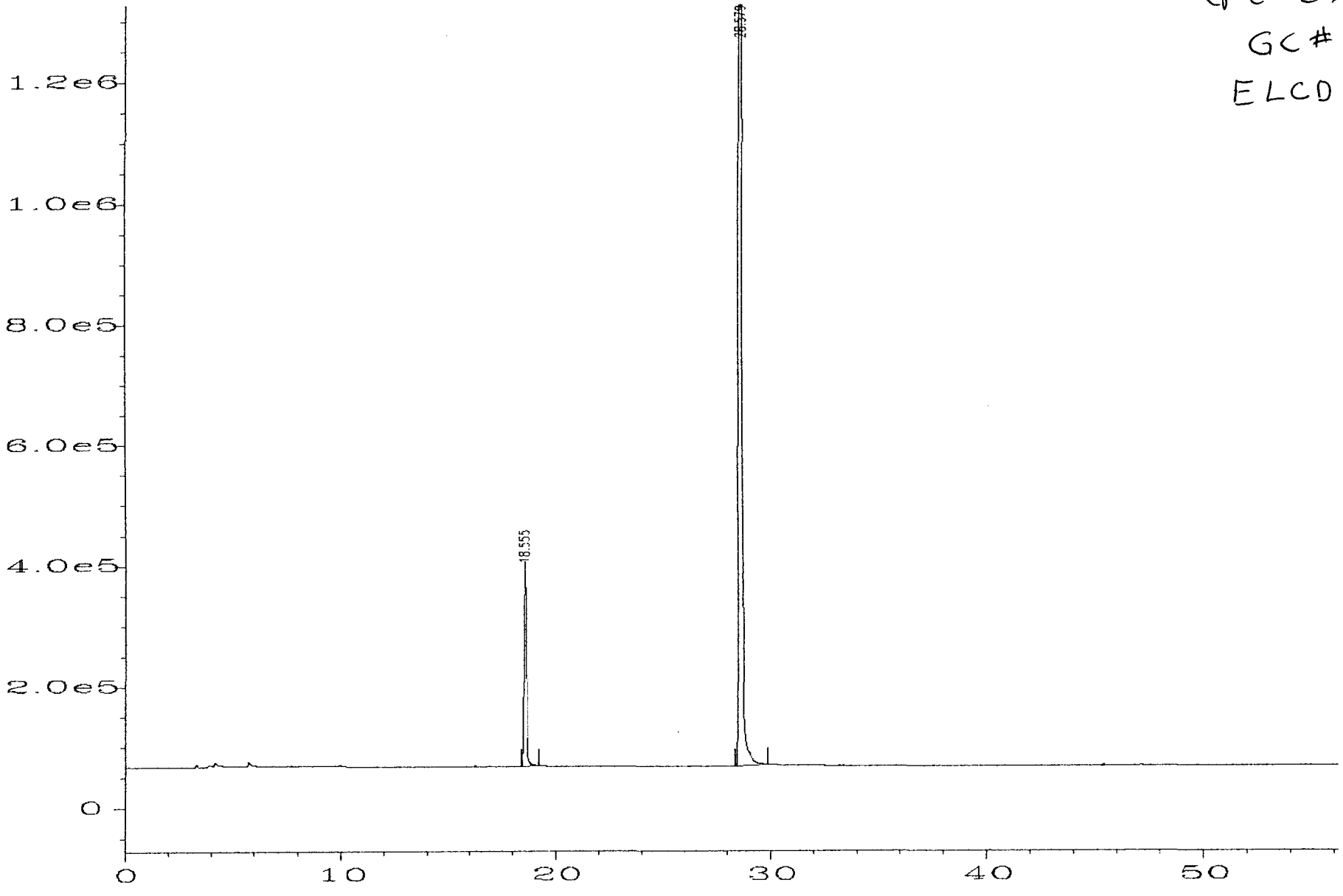
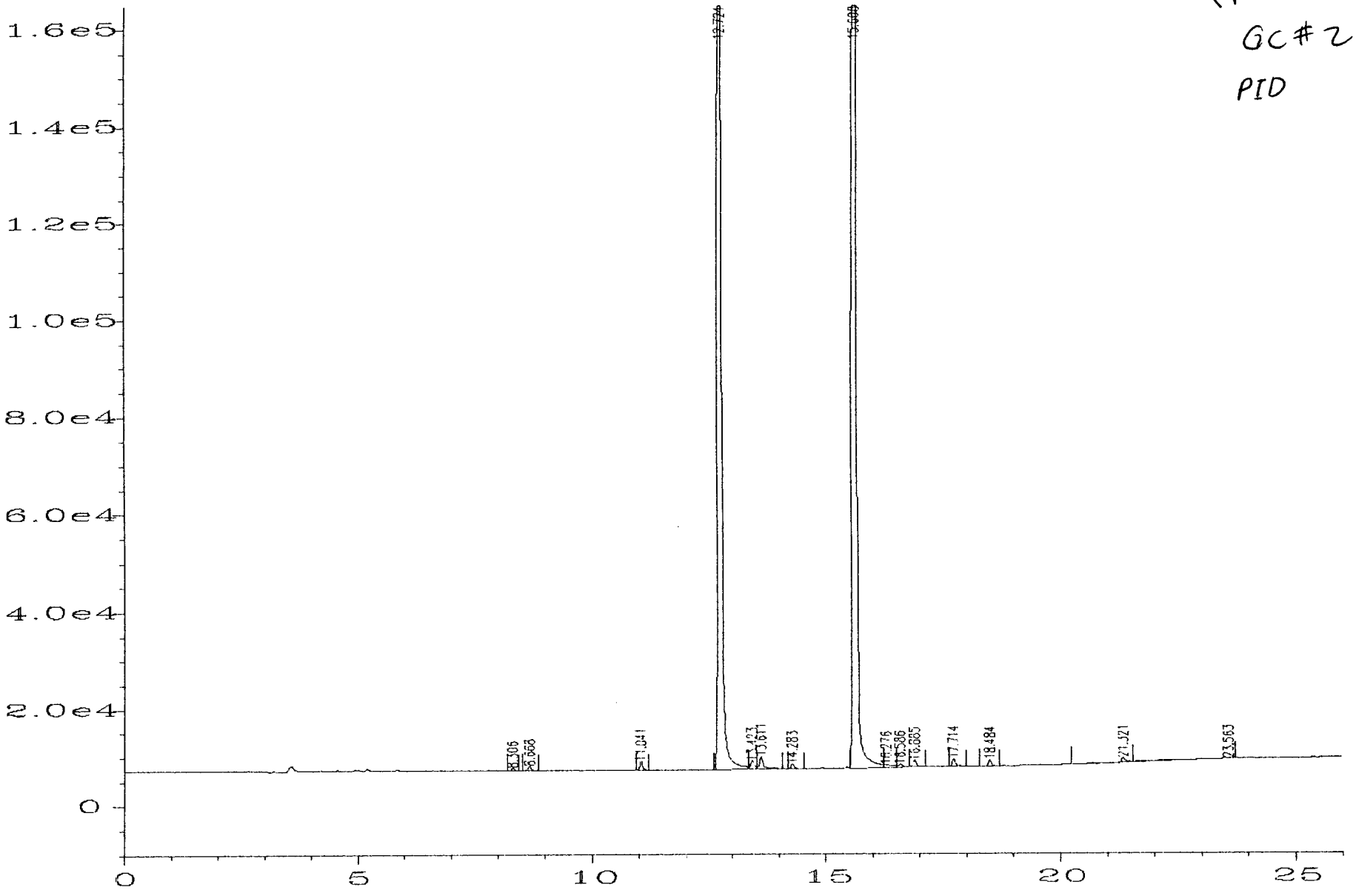
Sample # 8701 DF 1
(PZ-2)
GC#1
ELCD



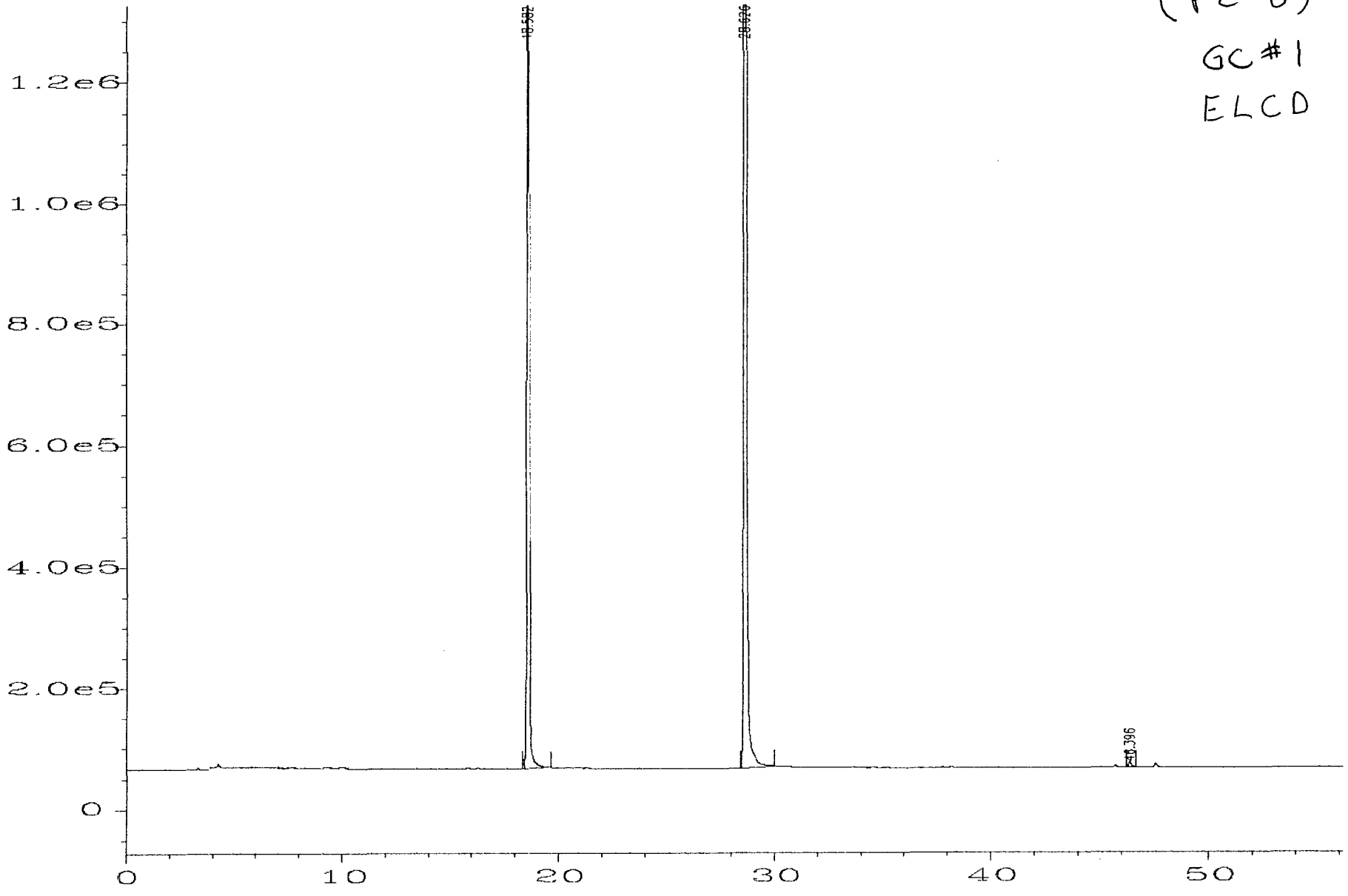
Sig. 1 in C:\HPCHEM\1\DATA\WS32AUD\069F0101.D

Sample # 8702 DF 1
(PZ-3)
GC#2
PID



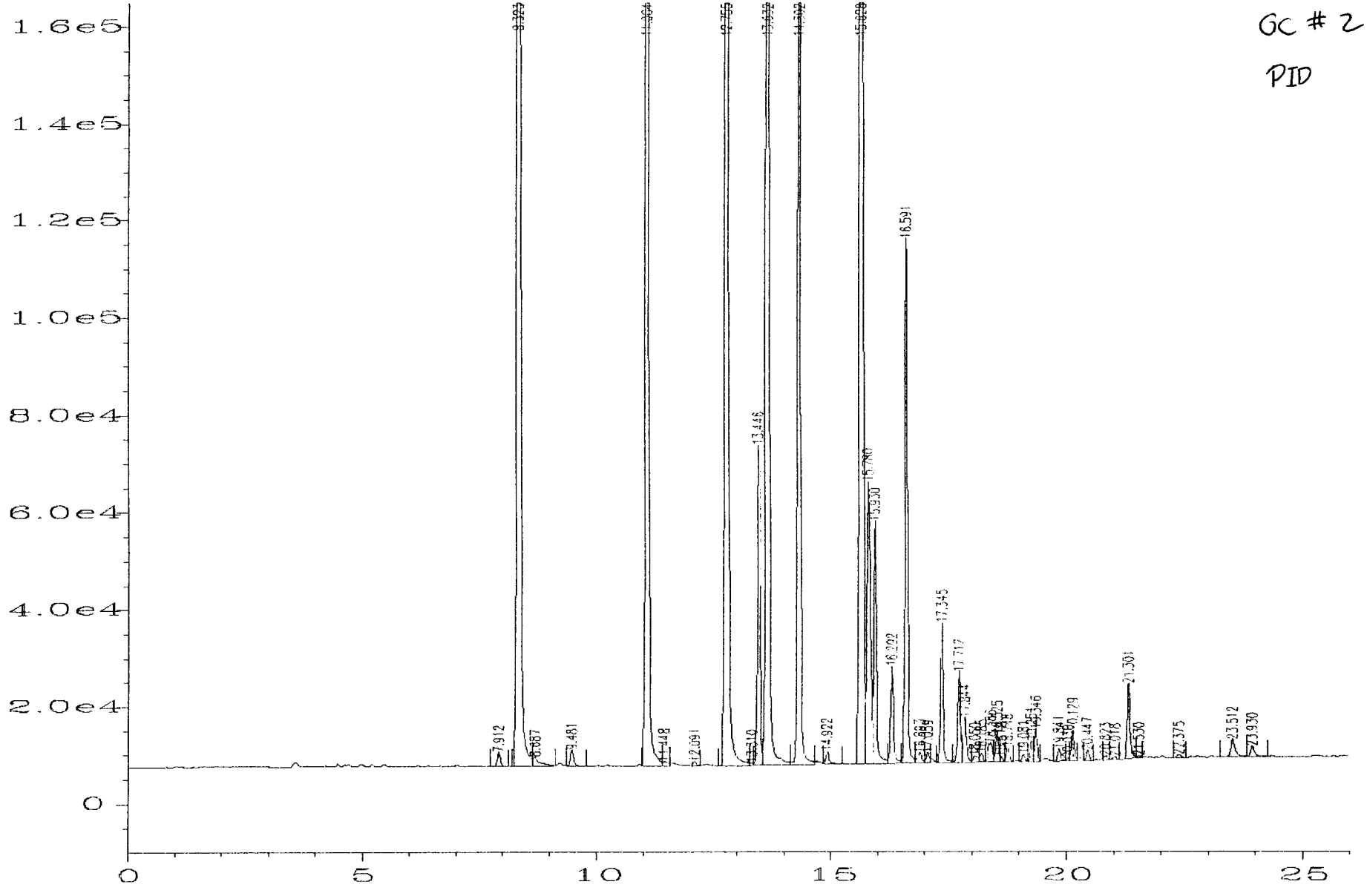
Sig. 2 in C:\HPCHEM\2\DATA\24MAYBTX\061R0101.D

Sample # 8702 DF 1
(PZ-3)
GC#1
ELCD



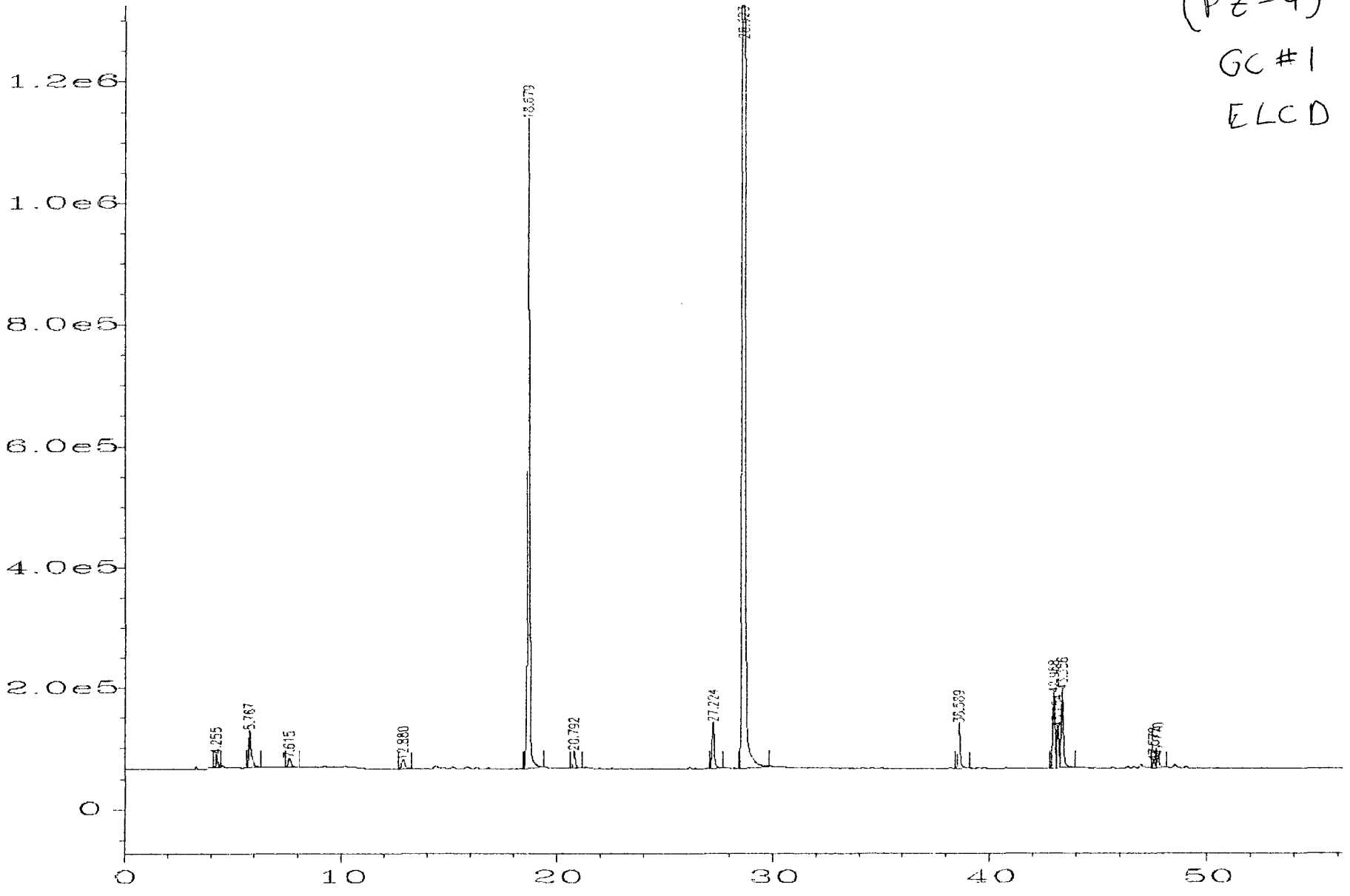
Sig. 1 in C:\HPCHEM\1\DATA\28MAYVOL\018F0701.D

Sample #8703 OF 100
(PZ-4)
GC # 2
PID



Sig. 2 in C:\HPCHEM\2\DATA\01JUNBTX\006R0101.D

Sample # 8703 DF 1
(PZ-4)
GC #1
ELCD



Sig. 1 in C:\HPCHEM\1\DATA\28MAYVOL\019F0701.D

Mountain States Analytical

The Quality Solution

December 14, 1993

Mr. Darrell Anderson
Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Reference:
Project: Kirtland
Project No.: 9131.01
MSAI Group: 3271

Dear Mr. Anderson:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

MW-9	MW-10	MW-13
MW-14	MW-15	MW-16
MW-18	MW-19	MW-20
MW-21	MW-25	MW-17
MW-22	Trip Blank	

All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Pamela L. Olsen for

Leon A. Peterson
Project Manager

[illegible] West 2200 South, Salt Lake City, Utah 84119 (801) 973-6310 Fax (801) 973-6078

Mountain States Analytical

The Quality Solution

December 14, 1993

Mr. Darrell Anderson
Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Reference:
Project: Kirtland
Project No.: 9181.06
MSAI Group: 3270

Dear Mr. Anderson:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

PZ-1	PZ-2
PZ-3	PZ-4
EB-1	

All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Chuck Sudbury FOR

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-9
Matrix: Waste Water

MSAI Sample: 13864
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons			
	Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-10
Matrix: Waste Water

MSAI Sample: 13865
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-13
Matrix: Waste Water

MSAI Sample: 13866
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons			
	Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-14
Matrix: Waste Water

MSAI Sample: 13867
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	1.2	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen

Leon A. Peterson
Project Manager for

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-15
Matrix: Waste Water

MSAI Sample: 13868
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-16
Matrix: Waste Water

MSAI Sample: 13869
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons			
	Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-17
Matrix: Waste Water

MSAI Sample: 13875
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/30/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	30.9	ug/l	1.0
	Benzene	8,590	ug/l	500
	Toluene	2,820	ug/l	100
	Ethylbenzene	636	ug/l	100
	m,p-Xylene	3,680	ug/l	100
	o-Xylene	1,200	ug/l	100
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-18
Matrix: Waste Water

MSAI Sample: 13870
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	337	ug/l	50
	Toluene	4.9	ug/l	1.0
	Ethylbenzene	261	ug/l	50
	m,p-Xylene	1,350	ug/l	50
	o-Xylene	2.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-19
Matrix: Waste Water

MSAI Sample: 13871
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	6.6	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-20
Matrix: Waste Water

MSAI Sample: 13872
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen

Leon A. Peterson for
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-21
Matrix: Waste Water

MSAI Sample: 13873
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	3.7	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-22
Matrix: Waste Water

MSAI Sample: 13876
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/30/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons			
	Method: 600 SERIES 601/602			
	1,2-Dichloroethane	2,780	ug/l	100
	Benzene	18,400	ug/l	500
	Toluene	8,480	ug/l	500
	Ethylbenzene	1,150	ug/l	100
	m,p-Xylene	5,220	ug/l	100
	o-Xylene	2,080	ug/l	100
6159	Chromatograms/Etc. GC	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen
Leon A. Peterson
Project Manager for

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: MW-25
Matrix: Waste Water

MSAI Sample: 13874
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/29/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	3.6	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: Trip Blank
Matrix: Waste Water

MSAI Sample: 13877
MSAI Group: 3271
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/22/93
Collected by: DA
Purchase Order:
Project No.: 9131.01

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: PZ-1
Matrix: Waste Water

MSAI Sample: 13859
MSAI Group: 3270
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/30/93
Collected by: DA
Purchase Order:
Project No.: 9181.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	3,580	ug/l	50
	Toluene	10.2	ug/l	1.0
	Ethylbenzene	506	ug/l	50
	m,p-Xylene	3,200	ug/l	50
	o-Xylene	14.6	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Charles Sukhapan FOR

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: PZ-2
Matrix: Waste Water

MSAI Sample: 13860
MSAI Group: 3270
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/30/93
Collected by: DA
Purchase Order:
Project No.: 9181.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Charles Sukup FOR
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: PZ-3
Matrix: Waste Water

MSAI Sample: 13861
MSAI Group: 3270
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/30/93
Collected by: DA
Purchase Order:
Project No.: 9181.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	11.5	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Charles Sukalac FOR
Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: PZ-4
Matrix: Waste Water

MSAI Sample: 13862
MSAI Group: 3270
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/30/93
Collected by: DA
Purchase Order:
Project No.: 9181.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons Method: 600 SERIES 601/602			
	1,2-Dichloroethane	2.1	ug/l	1.0
	Benzene	6,400	ug/l	100
	Toluene	4,420	ug/l	100
	Ethylbenzene	900	ug/l	100
	m,p-Xylene	5,610	ug/l	100
	o-Xylene	2,190	ug/l	100
6159	Chromatograms/Etc. GC Method: IN HOUSE MSAI	See Attached		

Respectfully Submitted,
Reviewed and Approved by:

Chuck Sukup FOR

Leon A. Peterson
Project Manager

Mountain States Analytical
The Quality Solution

Geowest Golden, Inc. Salt Lake Office
175 West 200 South
Suite # 2006
Salt Lake City, Ut 84101

Attn: Mr. Darrell Anderson
Project: Kirtland

Sample ID: EB-1
Matrix: Waste Water

MSAI Sample: 13863
MSAI Group: 3270
Date Reported: 12/14/93

Discard Date: 01/13/94
Date Submitted: 12/02/93
Date Sampled: 11/30/93
Collected by: DA
Purchase Order:
Project No.: 9181.06

Test	Analysis	Results as Received	Units	Limit of Quantitation
5515	Purgeable Aromatics/Halocarbons			
	Method: 600 SERIES 601/602			
	1,2-Dichloroethane	< 1.0	ug/l	1.0
	Benzene	< 1.0	ug/l	1.0
	Toluene	< 1.0	ug/l	1.0
	Ethylbenzene	< 1.0	ug/l	1.0
	m,p-Xylene	< 1.0	ug/l	1.0
	o-Xylene	< 1.0	ug/l	1.0
6159	Chromatograms/Etc. GC	See Attached		
	Method: IN HOUSE MSAI			

Respectfully Submitted,
Reviewed and Approved by:

Chuck Sukup FOR

Leon A. Peterson
Project Manager

Westech Laboratories Inc.
The Quality People
Since 1955

Phoenix • 3737 E. Broadway Rd. • AZ 85040 • 602-437-1080 • fax 437-8706
Flagstaff • 2400 E. Huntington Dr. • AZ 86004 • 602-774-2312 • fax 774-6469
El Paso • 10737 Gateway West #100 • TX 79935 • 915-592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS
MAVERIK / GEOWEST	9181.06
TELEPHONE 359 3059	PROJECT KIRTLAND
	JOB/P.O. NO. ~~9181.06~~

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): Darrell Anderson
SAMPLER (PLEASE PRINT): DARRELL ANDERSON

SAMPLE TYPE CODES: S – SOIL; O – OIL; T – TRAVEL BLANK; W – WATER; G – SLUDGE; F – FIELD BLANK; X – OTHER (SPECIFY)

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	HOLD	REQUESTED ANALYSES 601, 602 *	COMMENTS	LABORATORY IDENTIFICATION
PZ 1	11-30	1150	KIRTLAND NM		X	W	2		X	*Report Only BTEX & DCA	
2		1245			X	W	2		X		
3		1355			X	W	2		X		
4		1500			X	W	2		X		
EB - 1		1215			X	W	2		X		

RELINQUISHED BY (SIGNATURE)	PRINT NAME	DATE / TIME	RECEIVED BY (SIGNATURE)	PRINT NAME
Darrell Anderson	Darrell Anderson	12-1-93 0915	M.E. Pokuda	M.E. Pokuda
RELINQUISHED BY (SIGNATURE)	PRINT NAME	DATE / TIME	RECEIVED BY (SIGNATURE)	PRINT NAME
		10:39 12-01-93	Sherry Burton	Sherry Burton
RELINQUISHED BY (SIGNATURE)	PRINT NAME	DATE / TIME	RECEIVED BY (SIGNATURE)	PRINT NAME

REMARKS: Cooler temp. on arrival: 7.1°C

SAMPLE PROCESS TURNAROUND TIME: ☐ 10 BUSINESS DAYS ☐ OTHER (SPECIFY)

623 (8/92) White - Testing Laboratory; Yellow - Department Job File; Pink - Client

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El Paso • 10737 Gateway West #100 • TX 79935 • 915-592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS
Maxxim / GEONEST	
TELEPHONE: 359-3059	PROJECT: 9131.01 KIRTLAND
JOB/P.O. NO.: 9131.01	

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

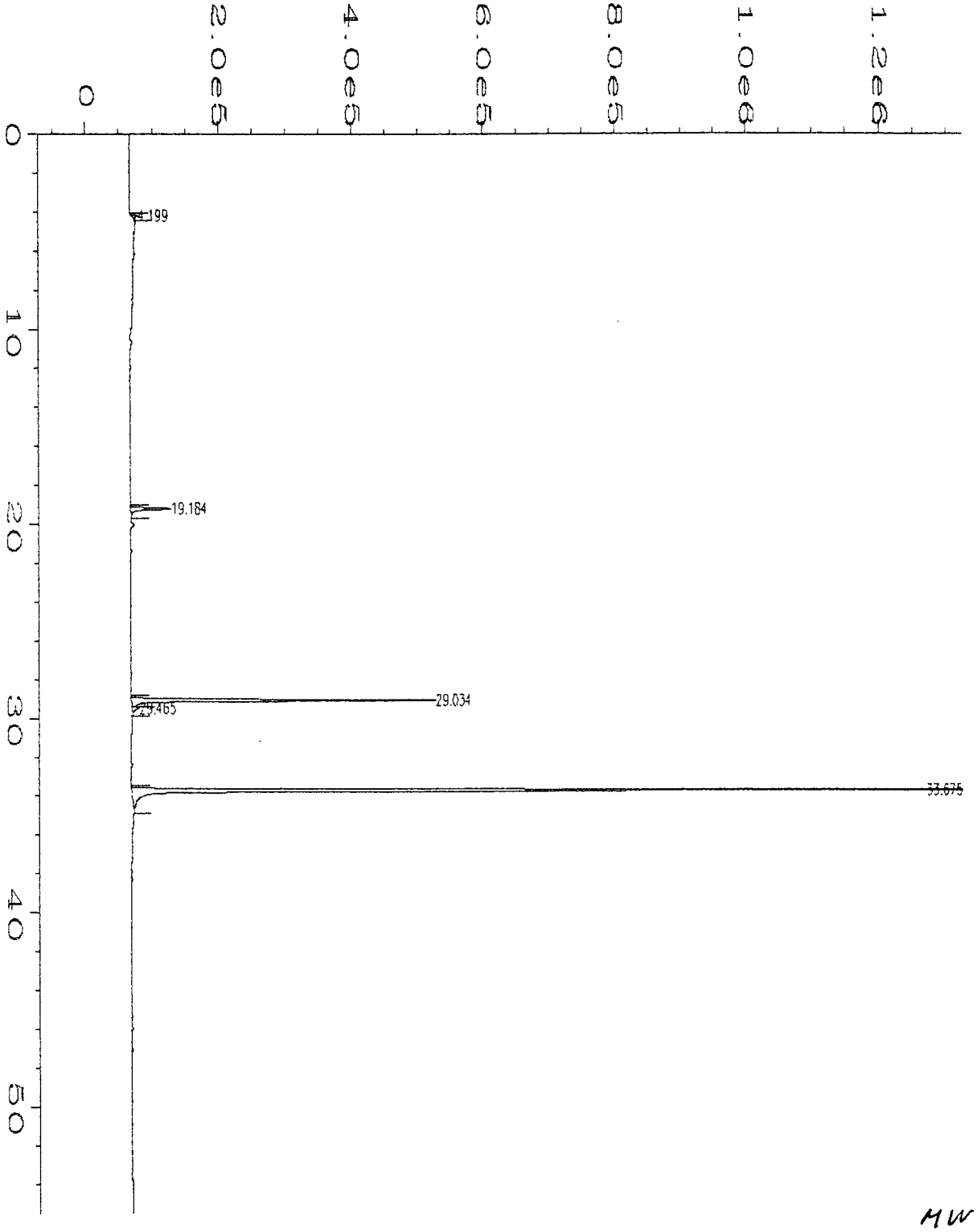
SAMPLE TYPE CODES: S – Soil; O – Oil; T – Travel Blank; W – Water; G – Sludge; F – Field Blank; X – Other (specify)

SAMPLER (SIGNATURE)	SAMPLER (PLEASE PRINT)
Darrell Anderson	Darrell Anderson

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	HOLD	REQUESTED ANALYSES 601 602*	COMMENTS	LABORATORY IDENTIFICATION
MW 9	11-29	1045	KIRTLAND NM		X	W	2		X	*Report only BTEX & DCA	
" 10		1330			X	W	2		X		
" 13		1600			X	W	2		X		
" 14		1110			X	W	2		X		
" 15		1630			X	W	2		X		
" 16		0945			X	W	2		X		
" 18		1350			X	W	2		X		
" 19		1300			X	W	2		X		
" 20		1200			X	W	2		X		
" 21		1520			X	W	2		X		
" 25		1530			X	W	2		X		
17	11-30	1330			X	W	2		X		
22		1530			X	W	2		X		
~~EBT~~					~~X~~	~~W~~	2		~~X~~		
TRIP BLANK							2		X		

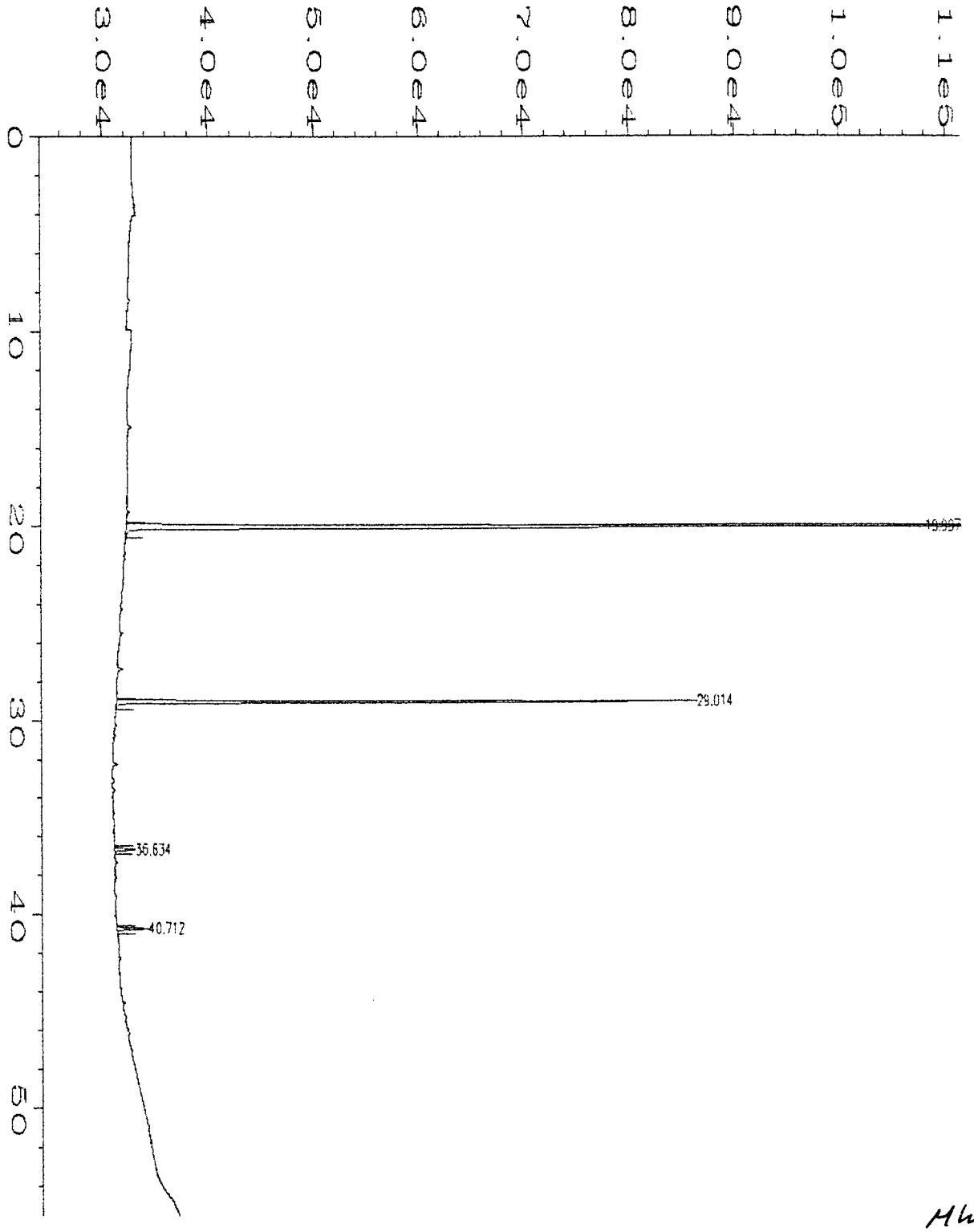
RELINQUISHED BY (SIGNATURE)	PRINT NAME	DATE / TIME	RECEIVED BY (SIGNATURE)	PRINT NAME	REMARKS
Darrell Anderson	Darrell Anderson	12-1 0917	M.E. Pollon	M.E. Pollon	Cooler temp at arrival: 7.1°C.
RELINQUISHED BY (SIGNATURE)	PRINT NAME	DATE / TIME	RECEIVED BY (SIGNATURE)	PRINT NAME	
			M.E		
RELINQUISHED BY (SIGNATURE)	PRINT NAME	DATE / TIME	RECEIVED BY (SIGNATURE)	PRINT NAME	SAMPLE PROCESS TURNAROUND TIME: ☐ 10 BUSINESS DAYS ☐ OTHER (SPECIFY)
		10:30 12-01-93	Sherry Burton	Sherry Burton	

623 (8/92) White - Testing Laboratory; Yellow - Department Job File; Pink - Client



MW-9

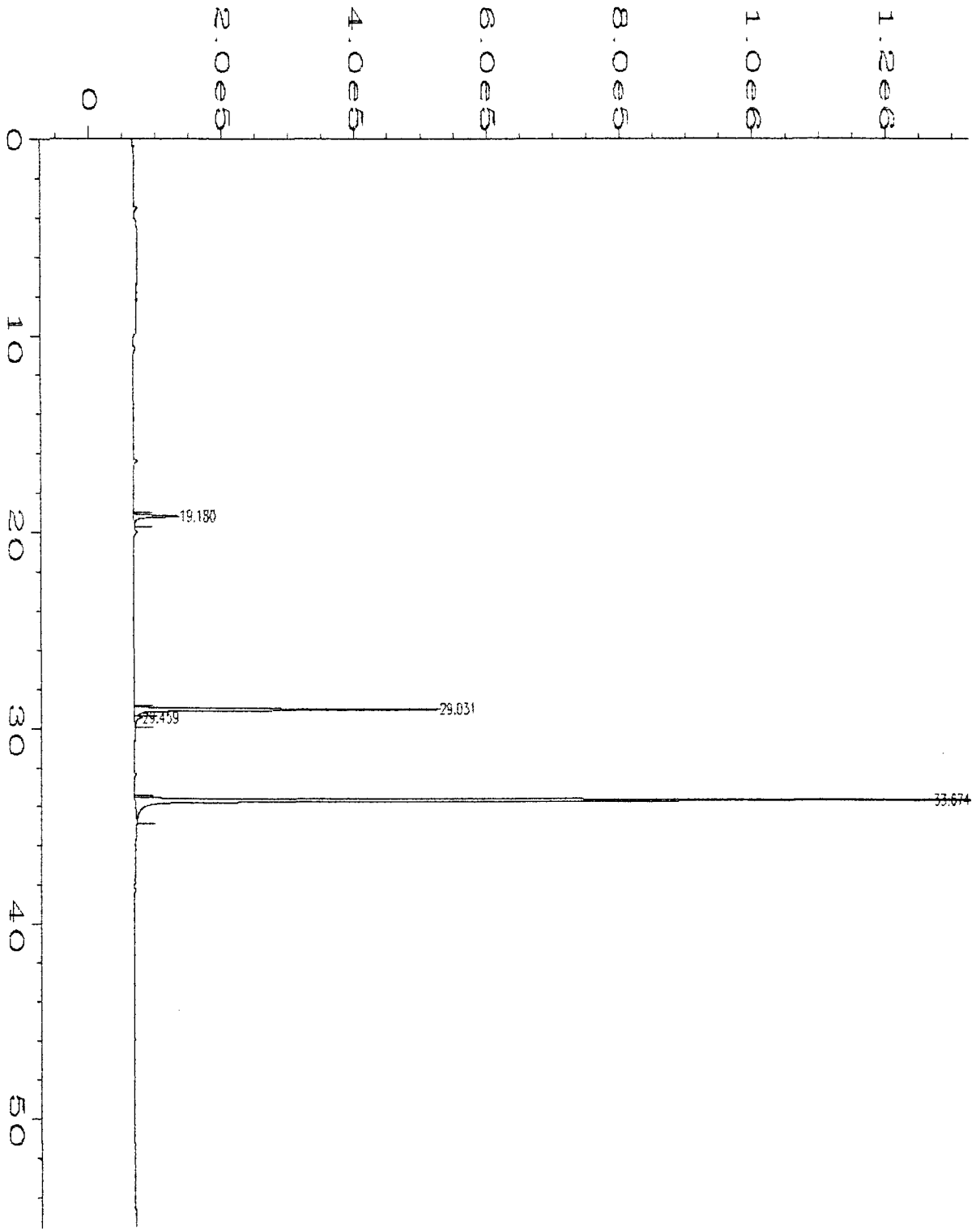
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\029F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 29
Sample Name	: 13864	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 05:04 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:42 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



MW-8 9

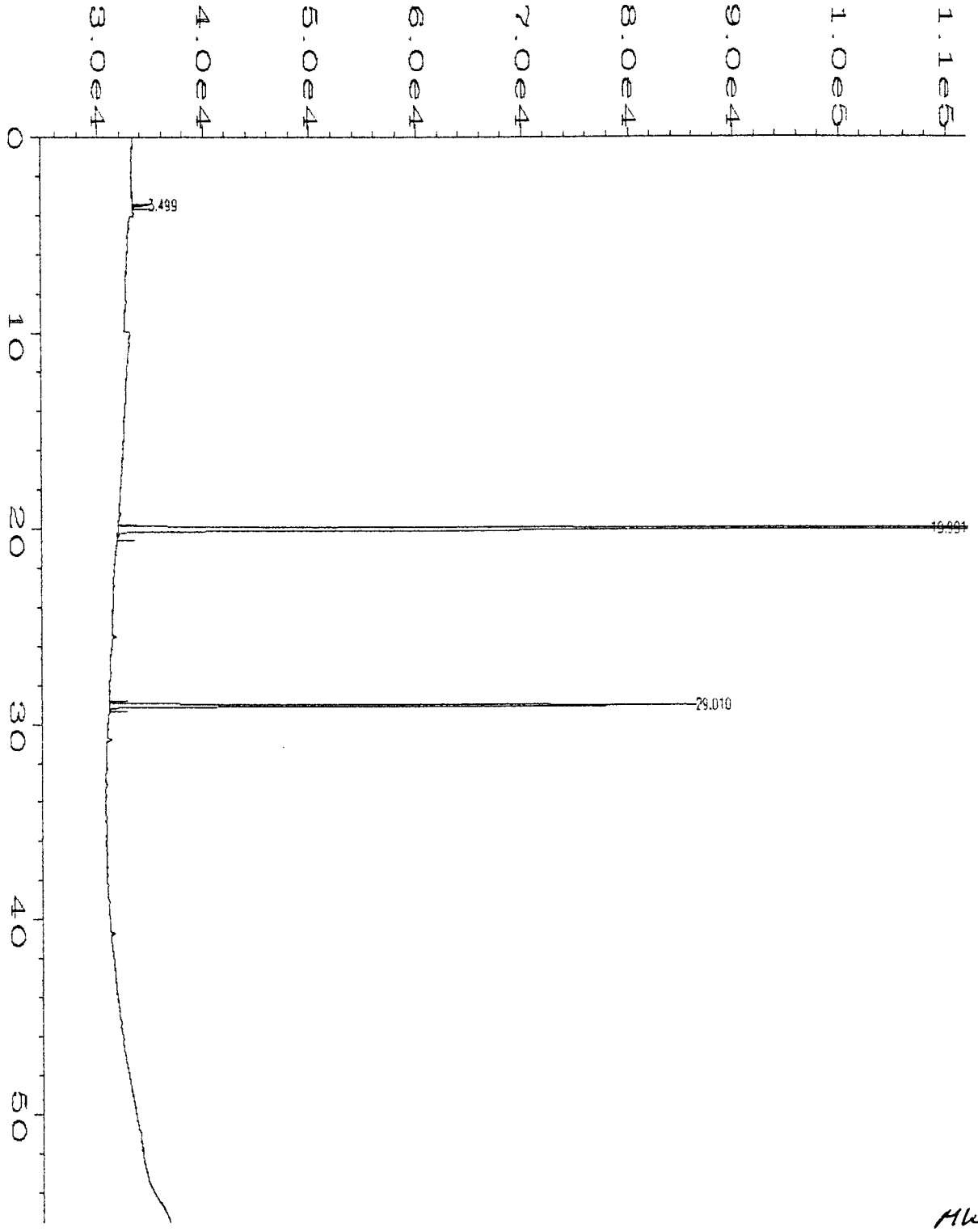
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\029R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13864
Run Time Bar Code:
Acquired on : 08 Dec 93 05:04 AM
Report Created on: 11 Dec 93 02:07 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\030F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 30
Sample Name	: 13865	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 06:08 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:43 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

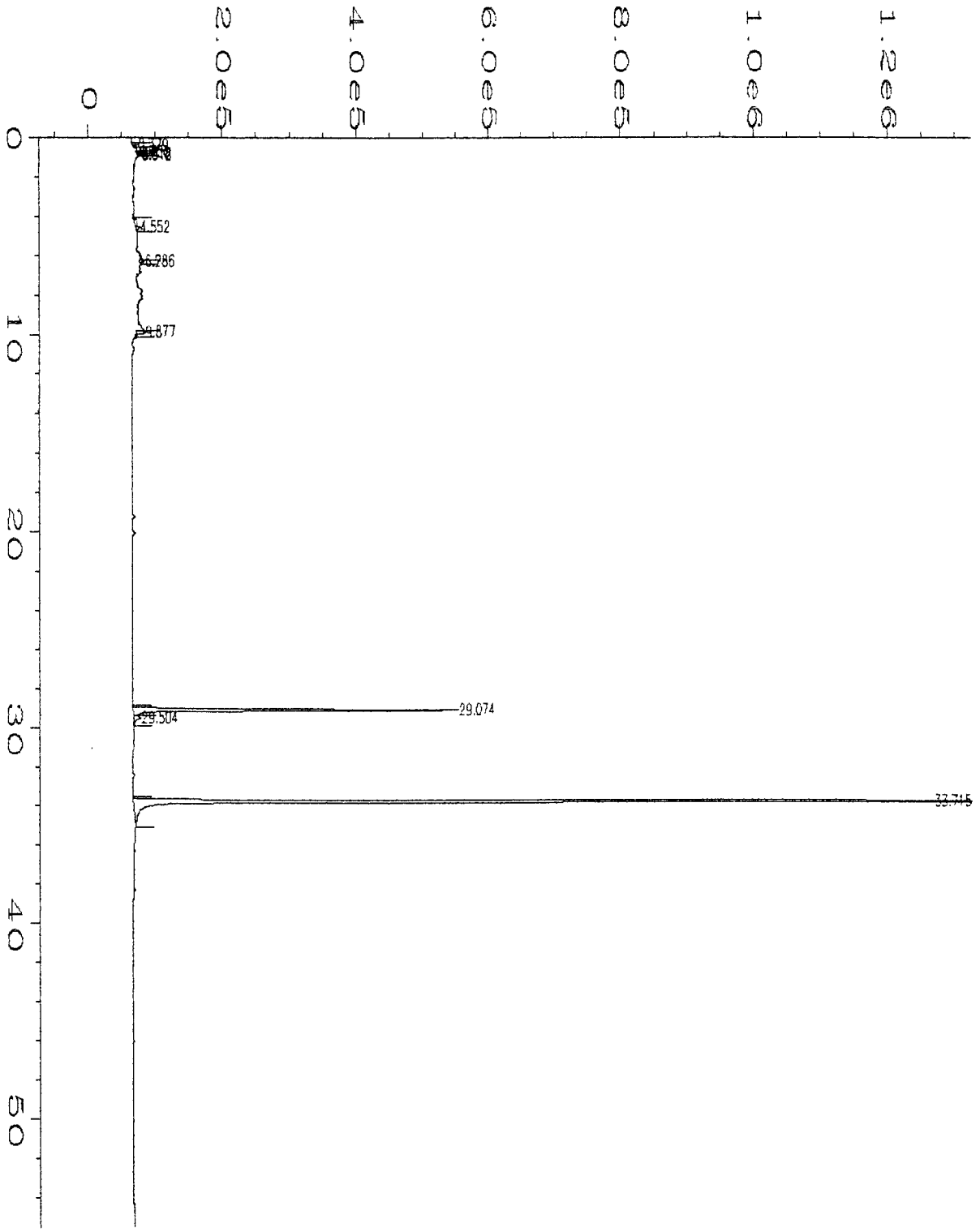
MW-10



MW-10

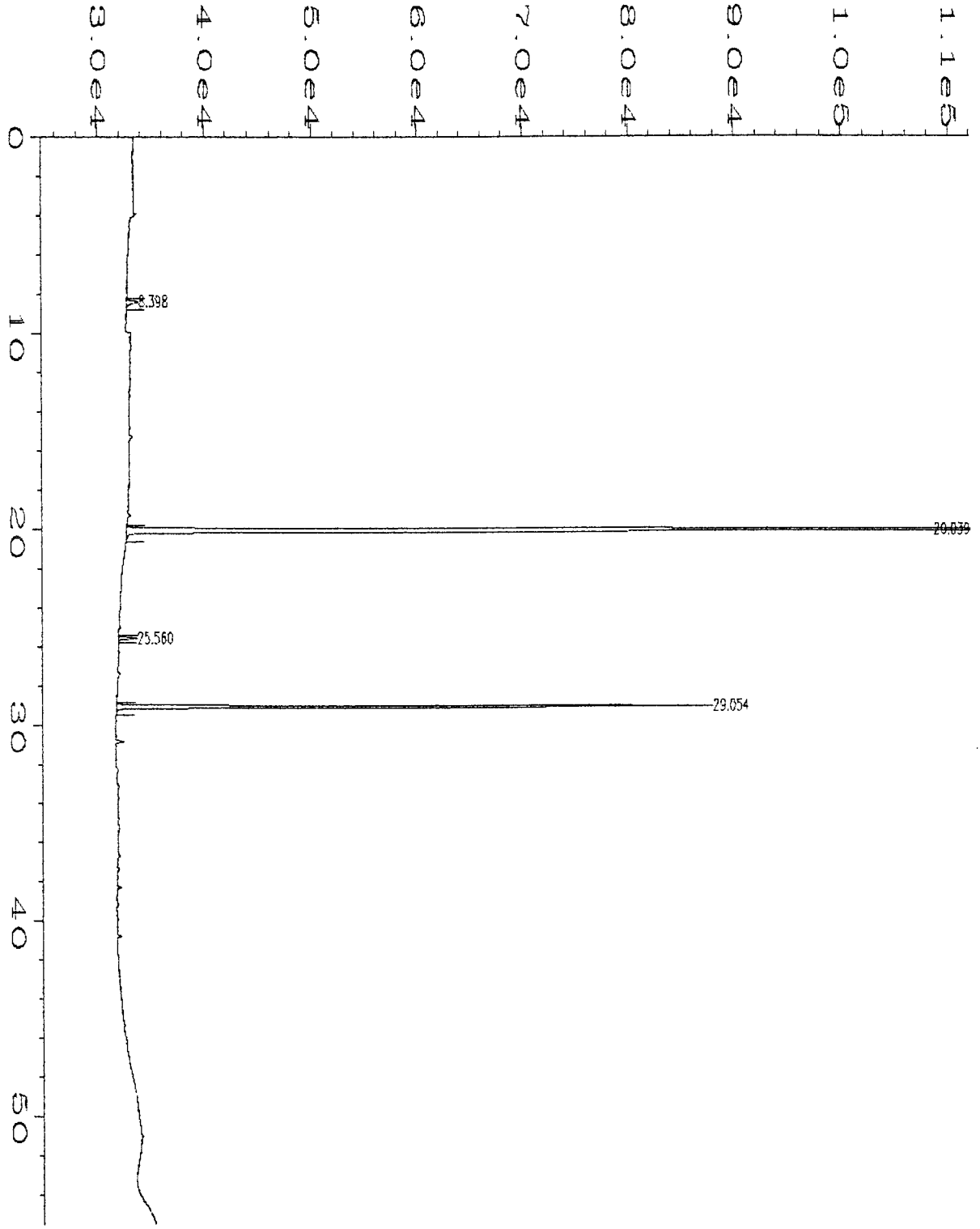
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\030R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13865
Run Time Bar Code:
Acquired on : 08 Dec 93 06:08 AM
Report Created on: 11 Dec 93 02:06 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



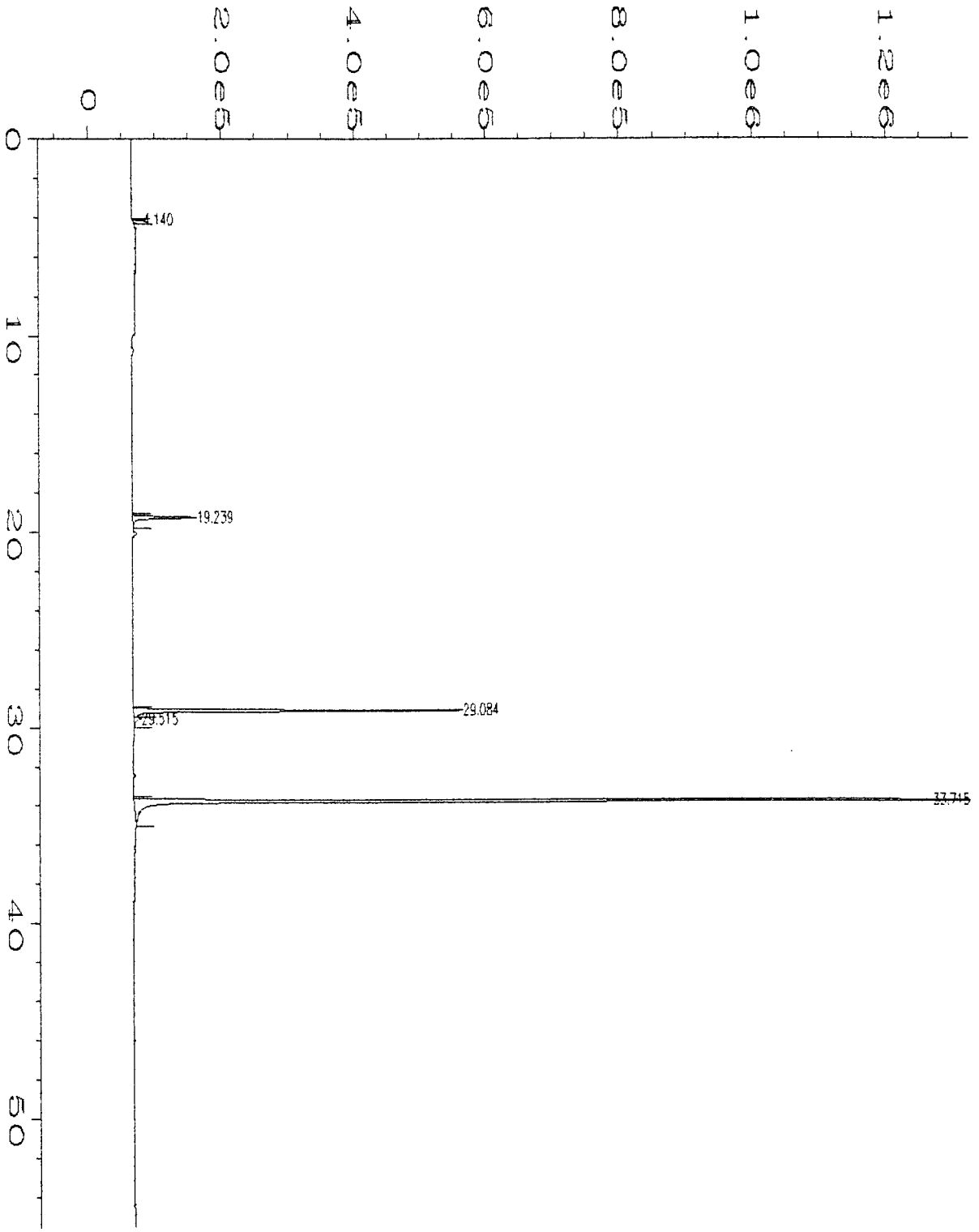
MW-13

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\031F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 31
Sample Name	: 13866	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 07:13 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:43 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\031R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 31
Sample Name	: 13866	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 07:13 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 02:04 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10

MW-13



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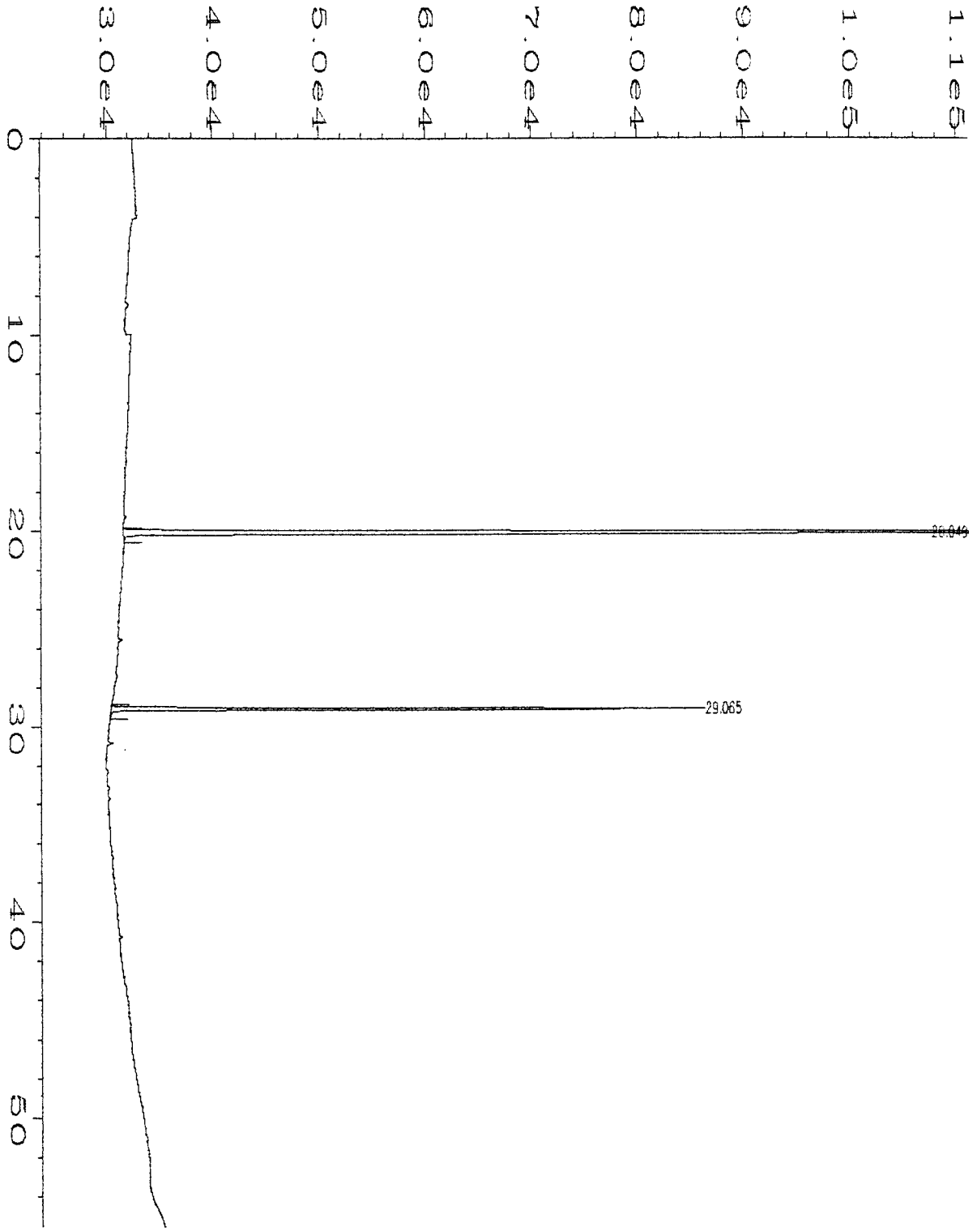
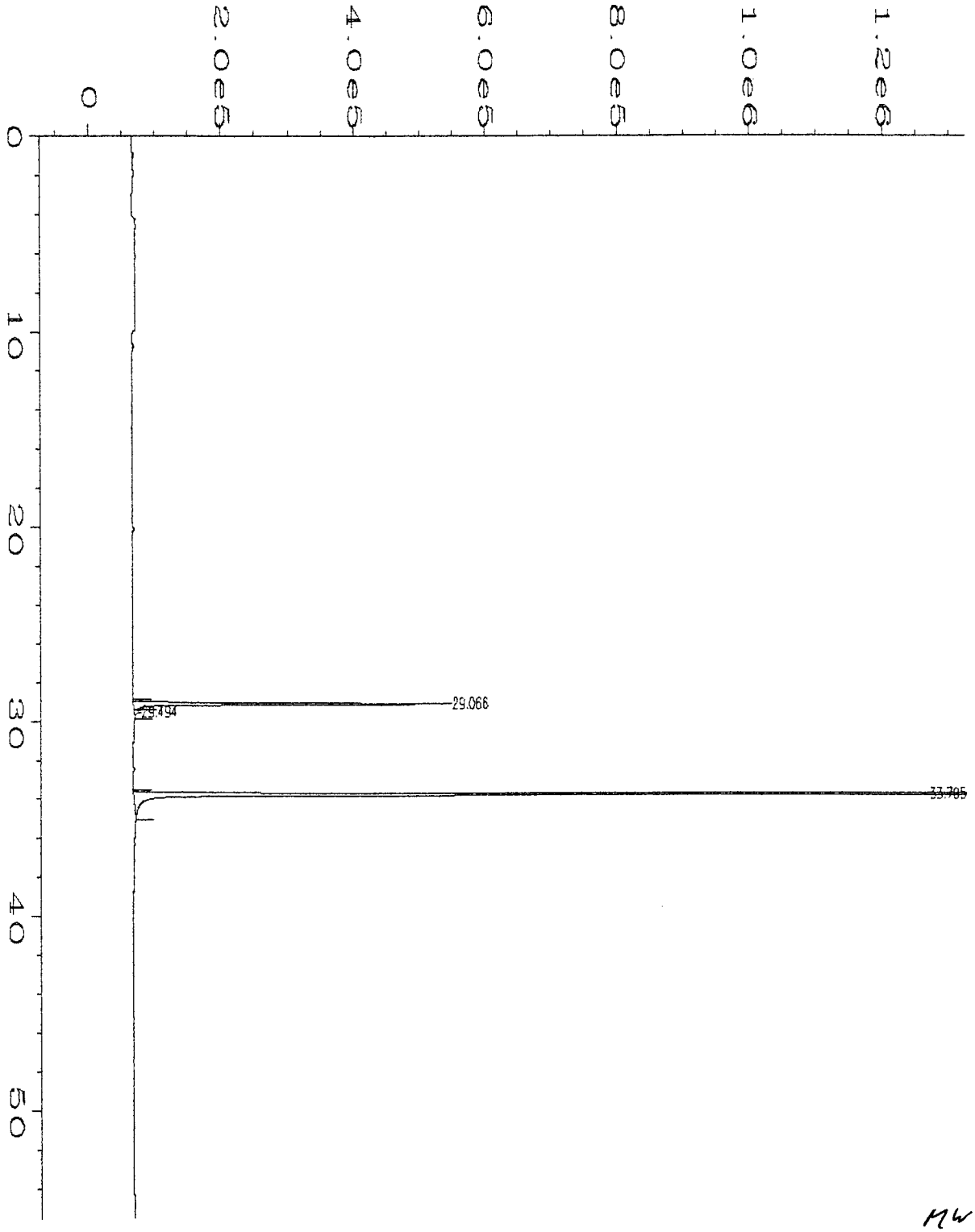
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 32
Sample Name	: 13867	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 08:17 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:43 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

MW-14



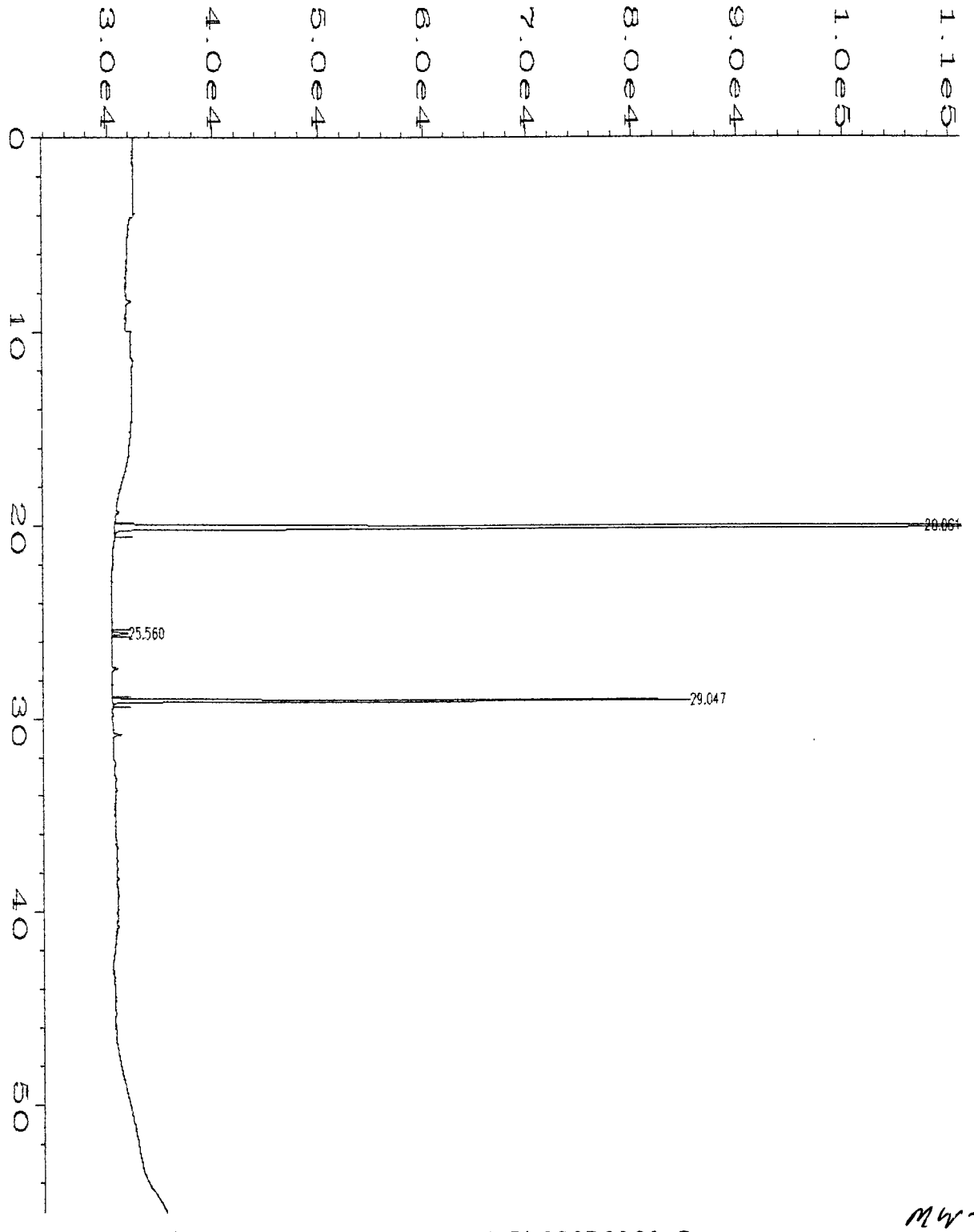
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\032R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 32
Sample Name	: 13867	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 08:17 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 02:04 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10

MW-14



MW 15

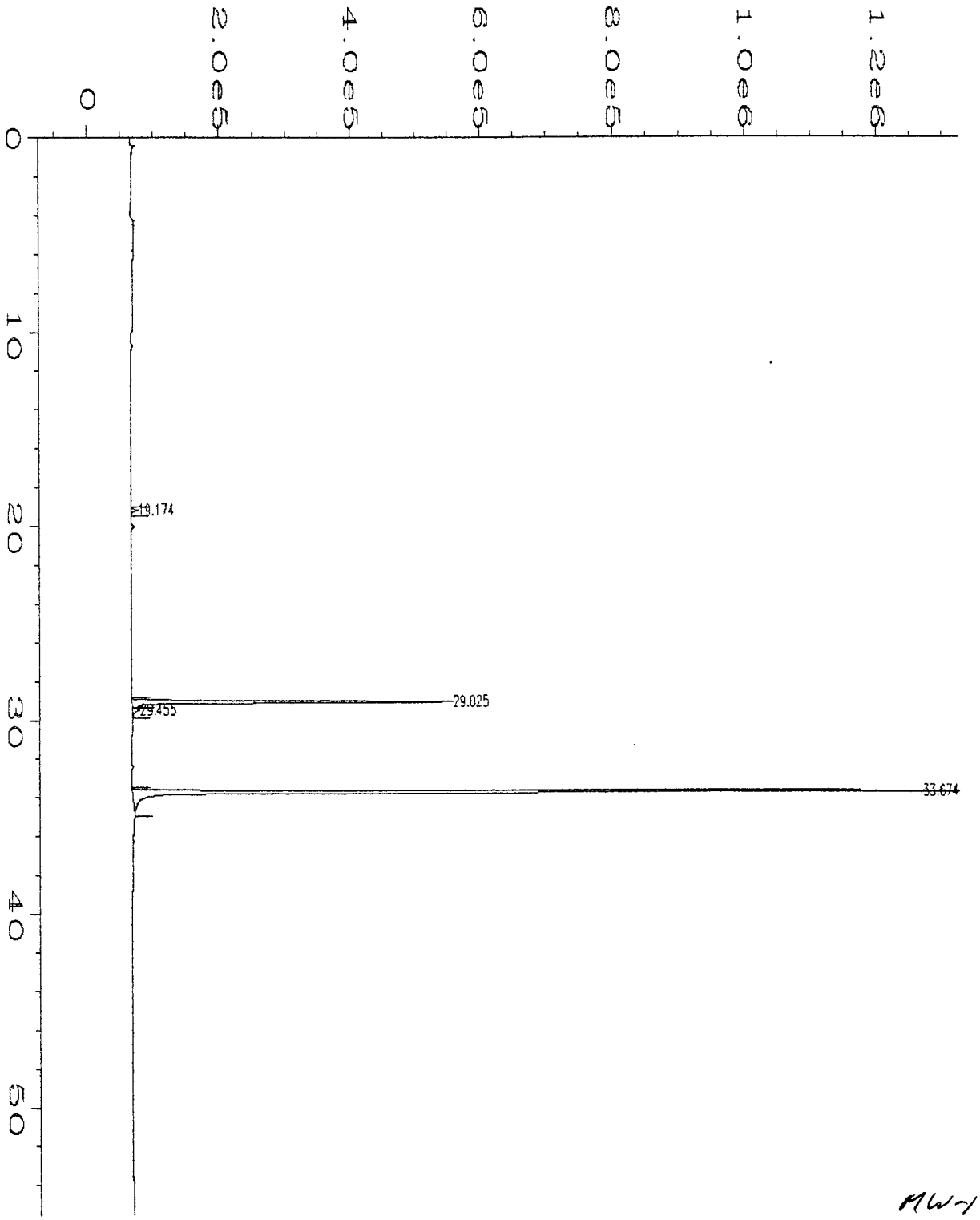
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\033F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 33
Sample Name	: 13868	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 09:22 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:44 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



MW-15

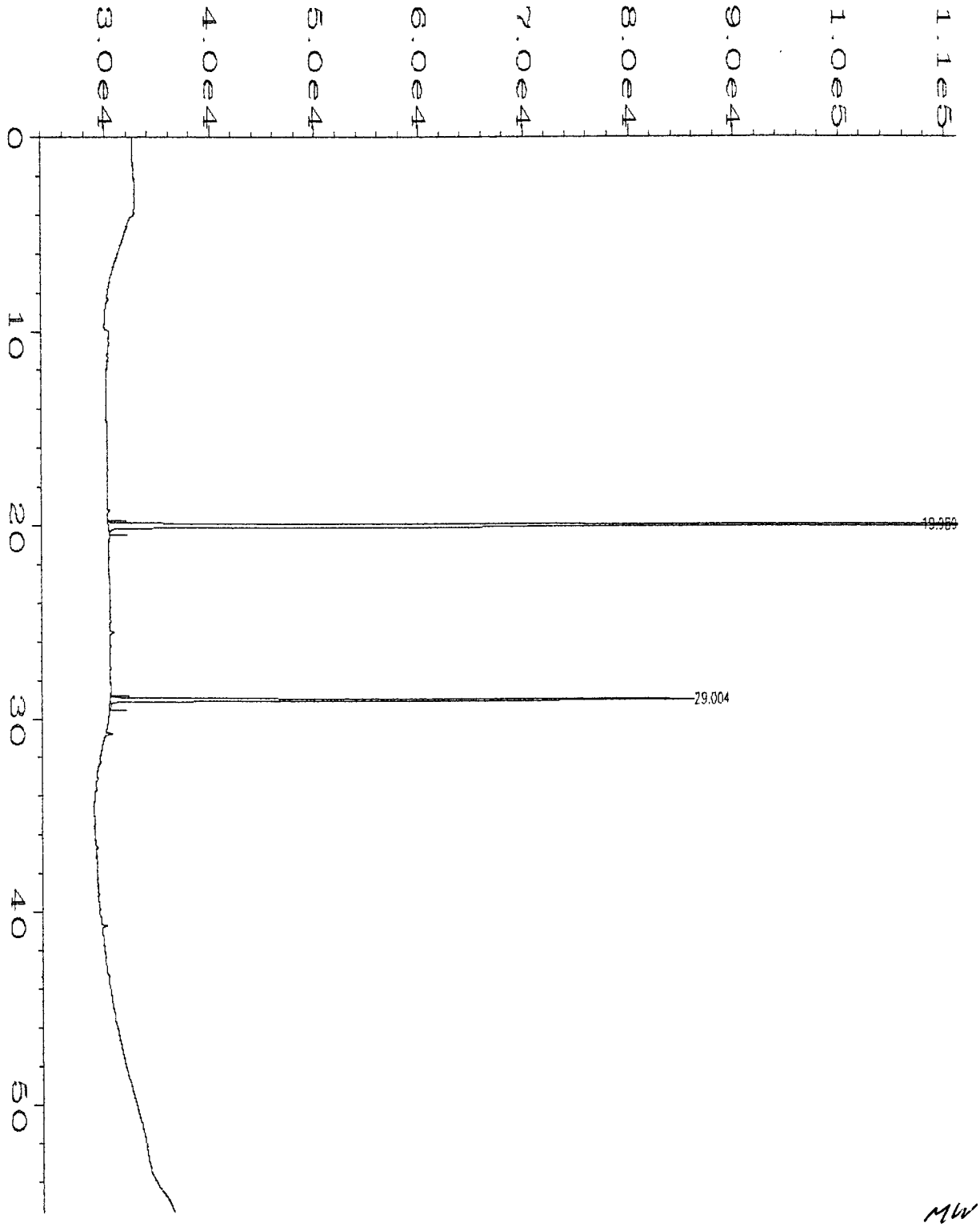
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\033R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13868
Run Time Bar Code:
Acquired on : 08 Dec 93 09:22 AM
Report Created on: 11 Dec 93 02:03 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 33
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



MW-16

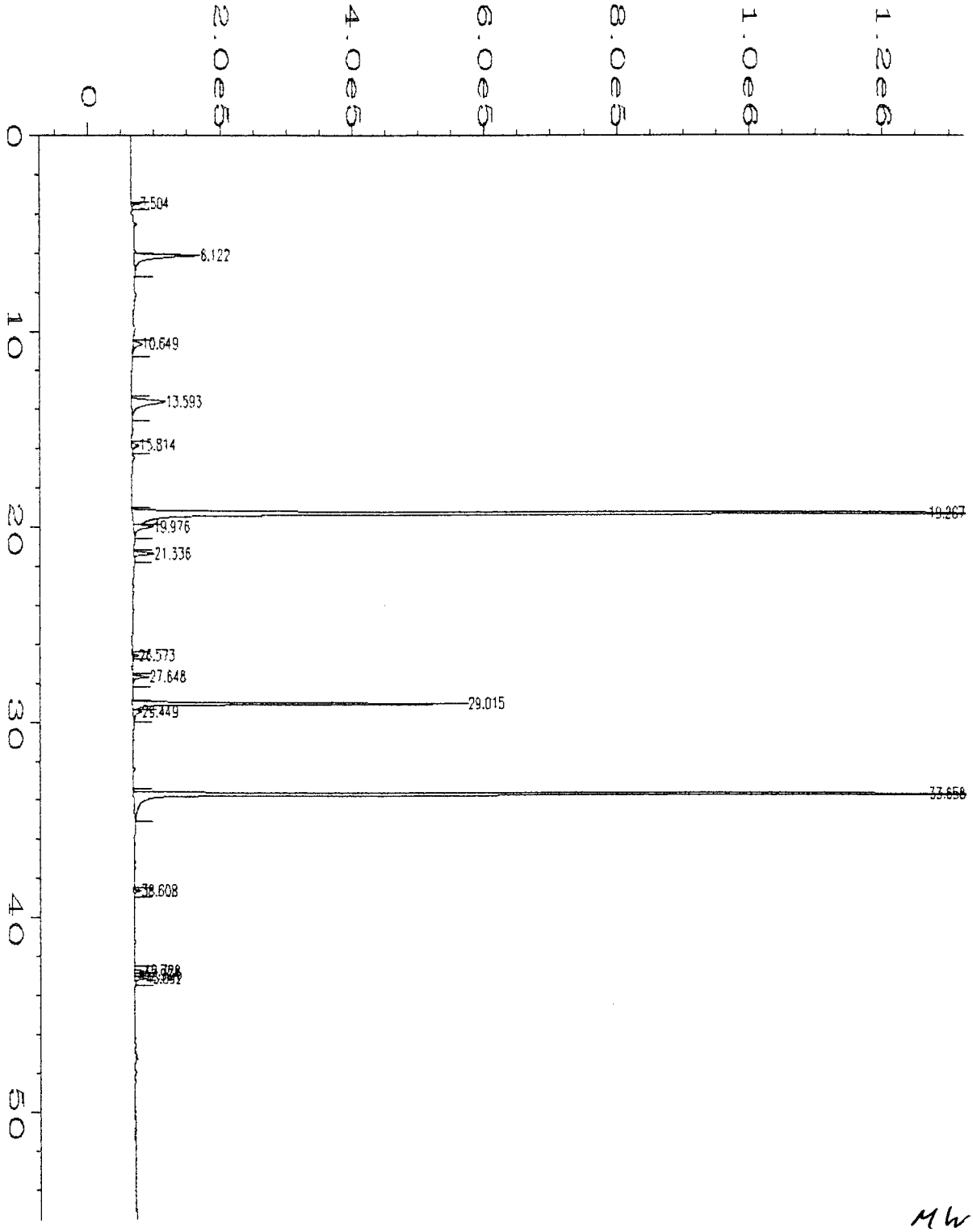
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\034F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 34
Sample Name	: 13869	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 10:27 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:45 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



MW-16

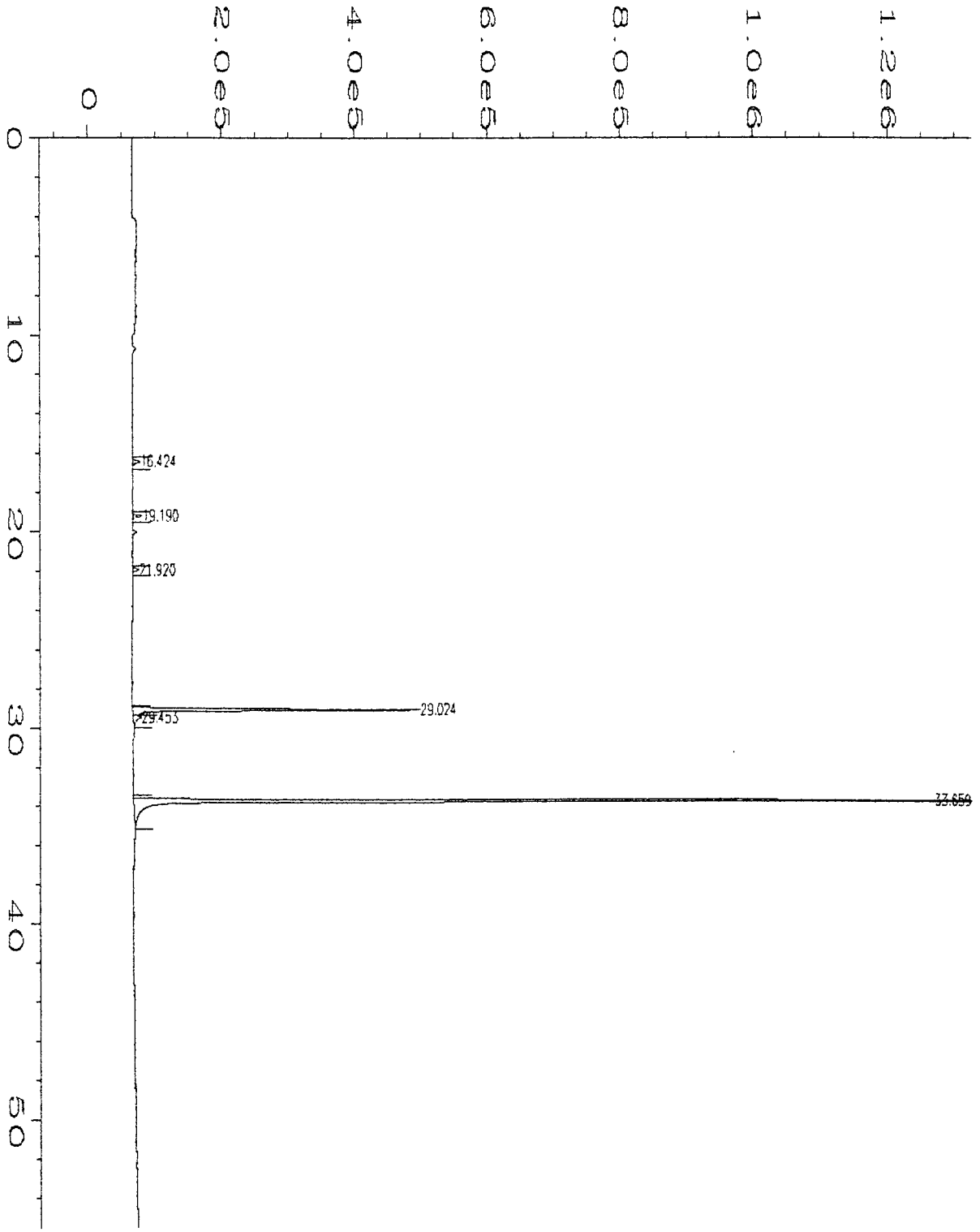
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\034R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13869
Run Time Bar Code:
Acquired on : 08 Dec 93 10:27 AM
Report Created on: 11 Dec 93 02:02 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 34
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



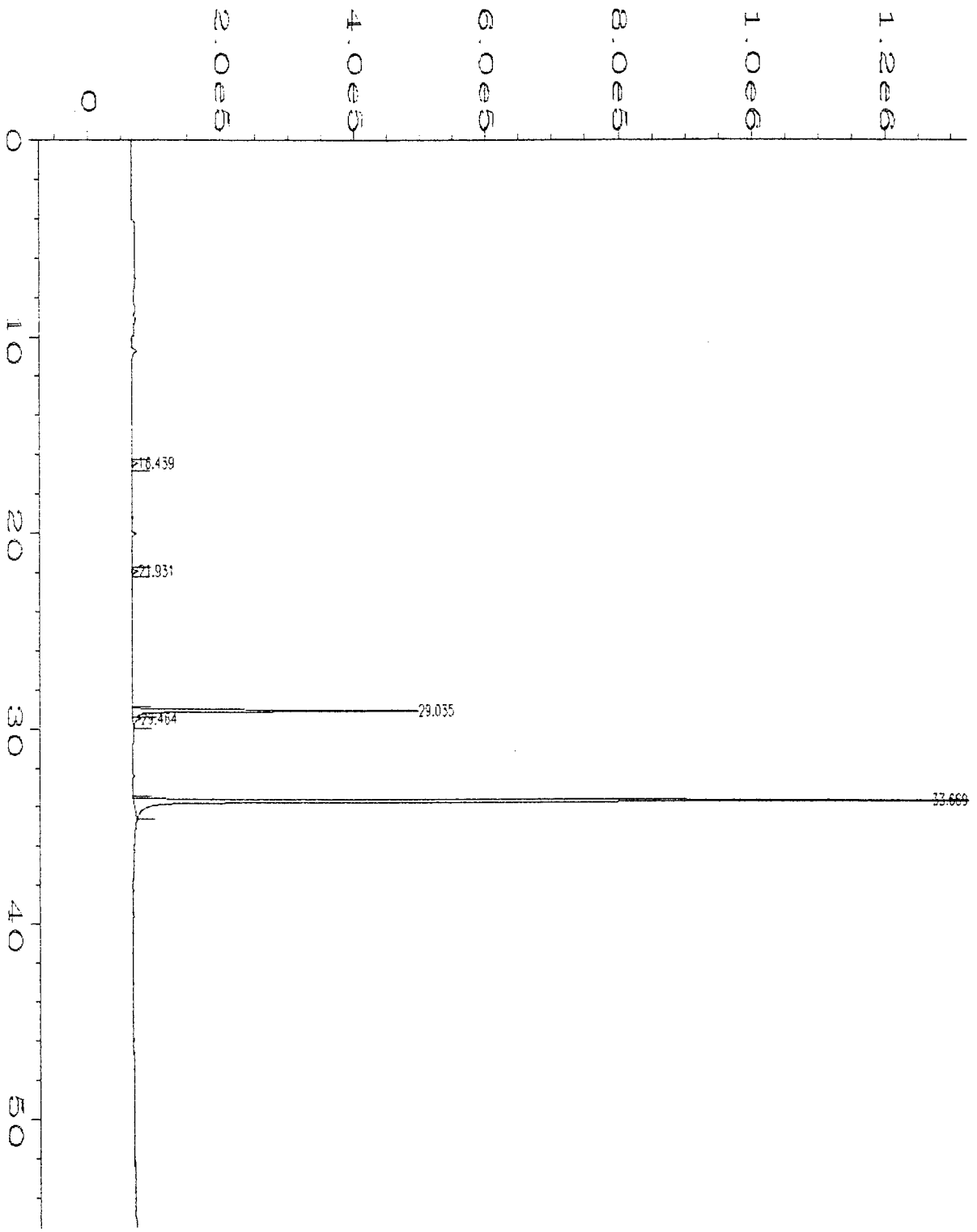
MW-17

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\054F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 54
Sample Name	: 13875 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 09 Dec 93 11:26 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:50 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



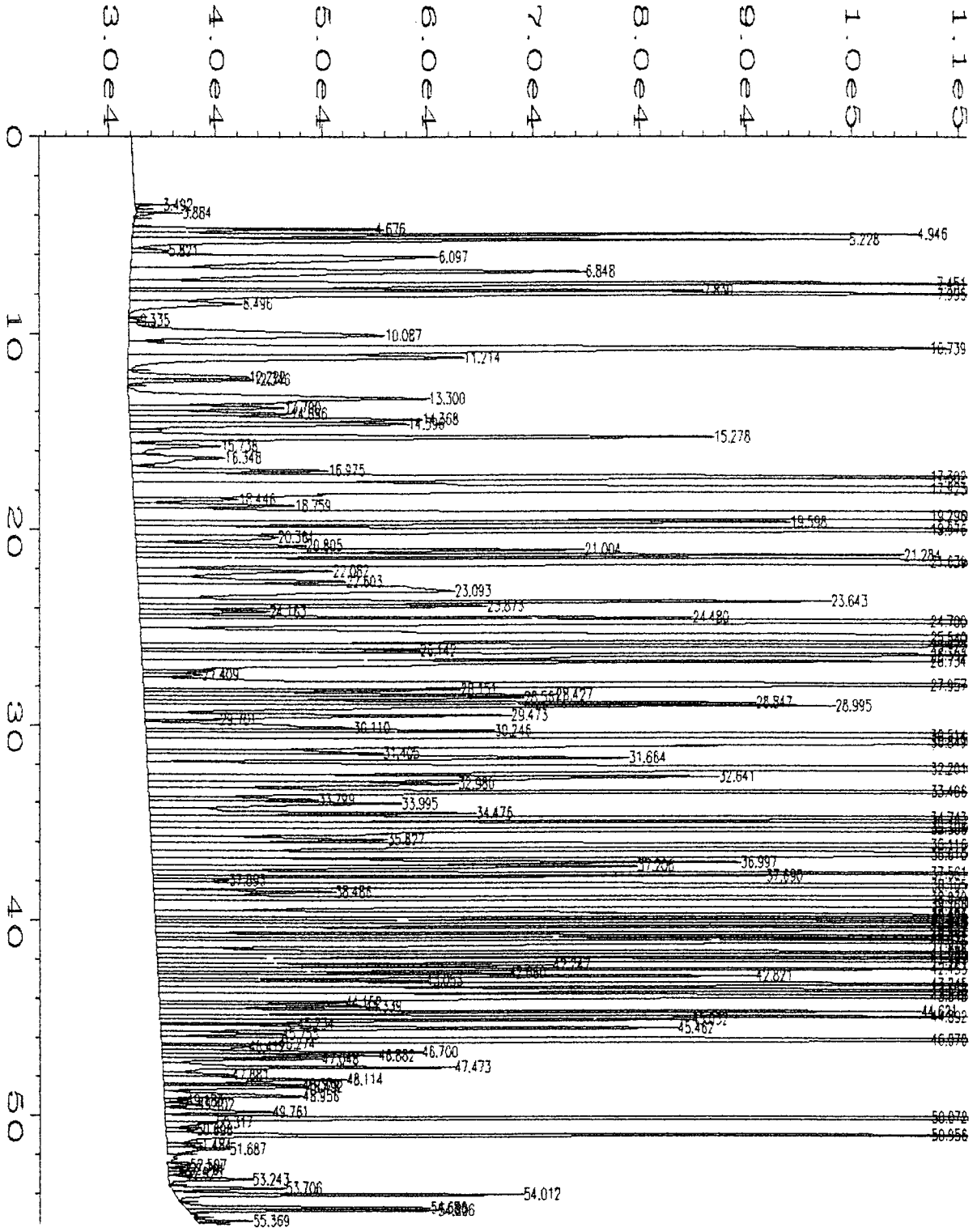
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\064F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 64
Sample Name	: 13875 DF100	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 05:35 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:51 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

MW-17



MW-17

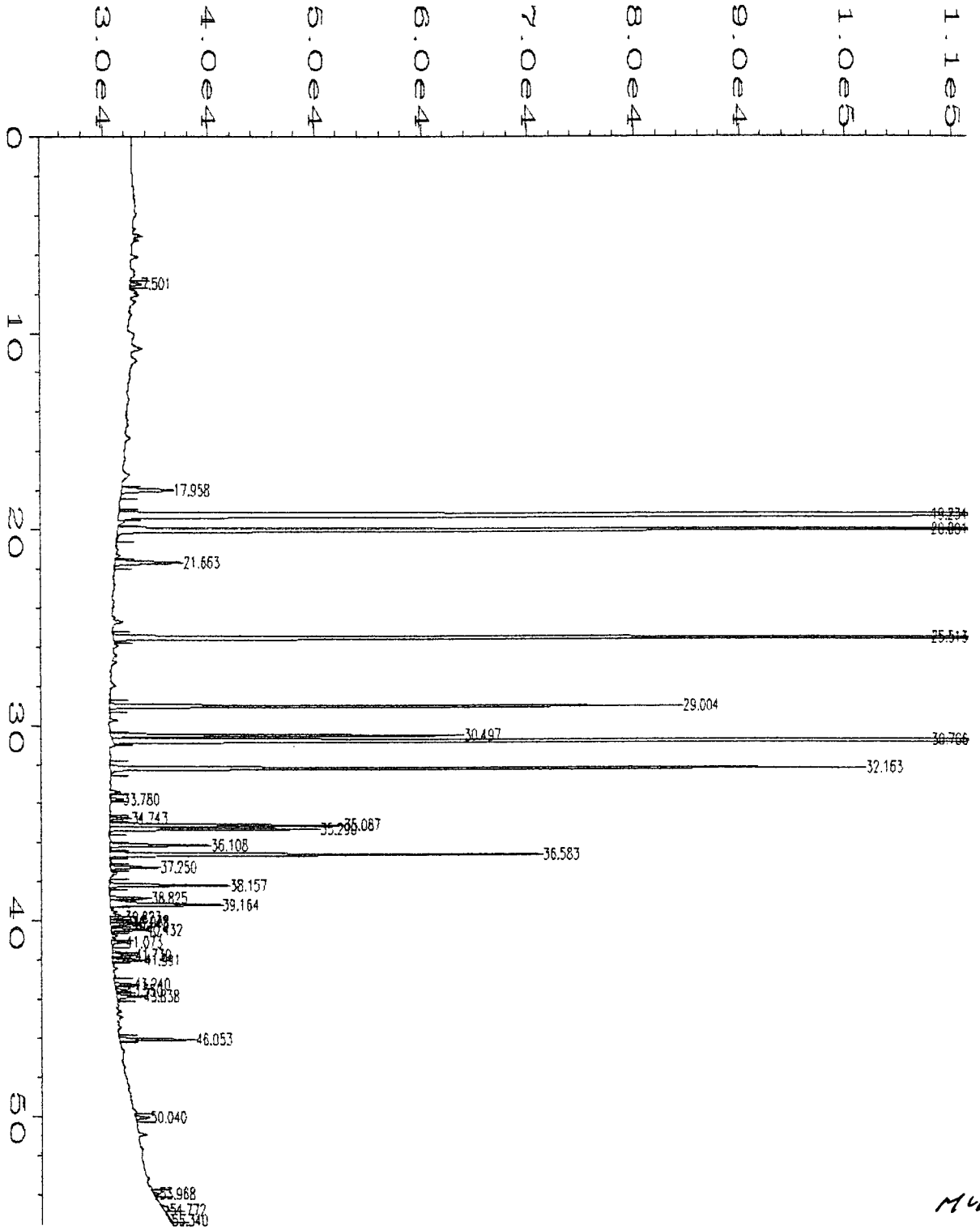
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\076F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 76
Sample Name	: 13875 DF500	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 10:30 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:51 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name : C:\HPCHEM\1\DATA\03DECVOL\054R0101.D

Operator : PWK
Instrument : GC#1
Sample Name : 13875 DF1
Run Time Bar Code:
Acquired on : 09 Dec 93 11:26 AM
Report Created on: 11 Dec 93 01:58 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

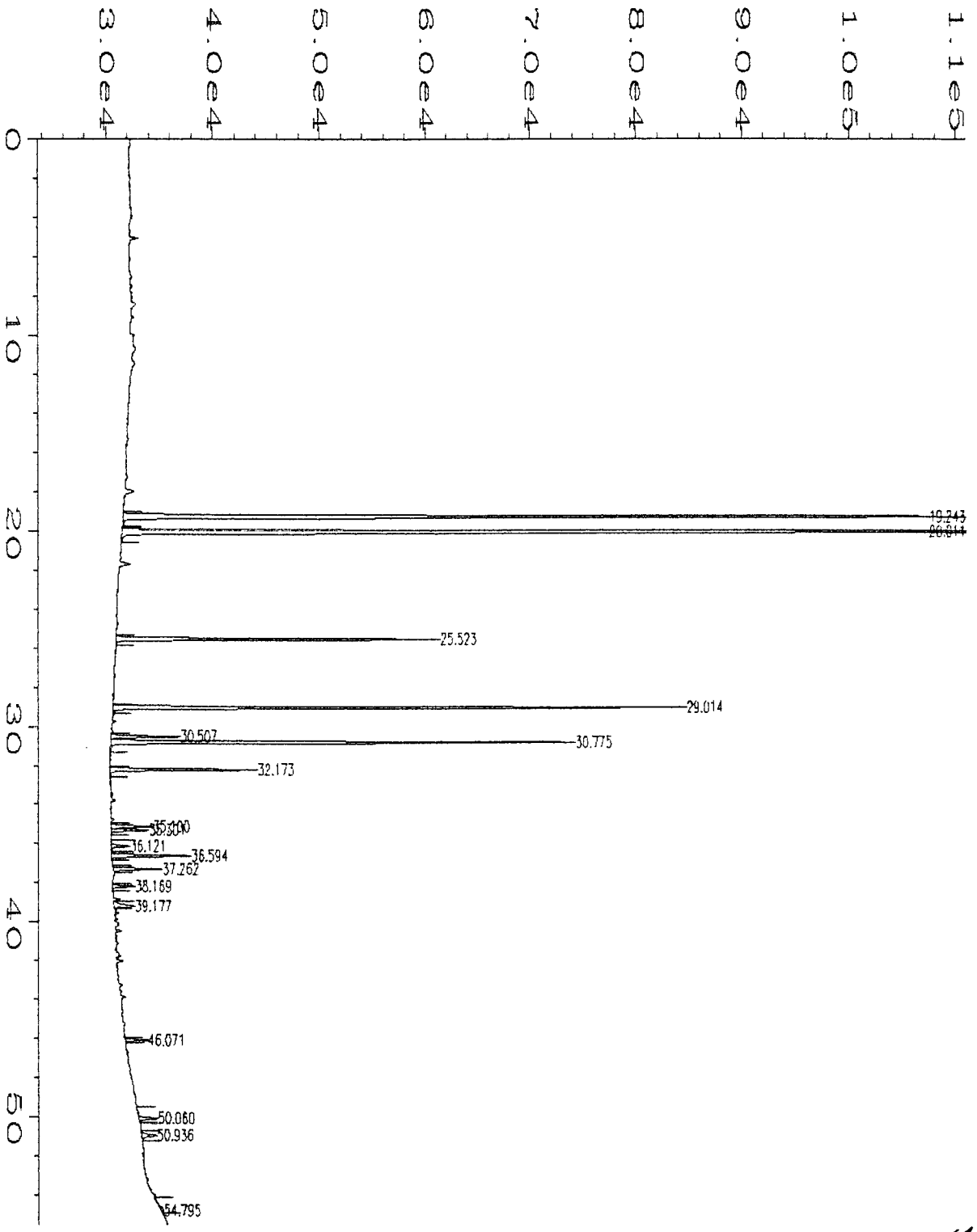
Page Number : 1
Vial Number : 54
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



MW-7

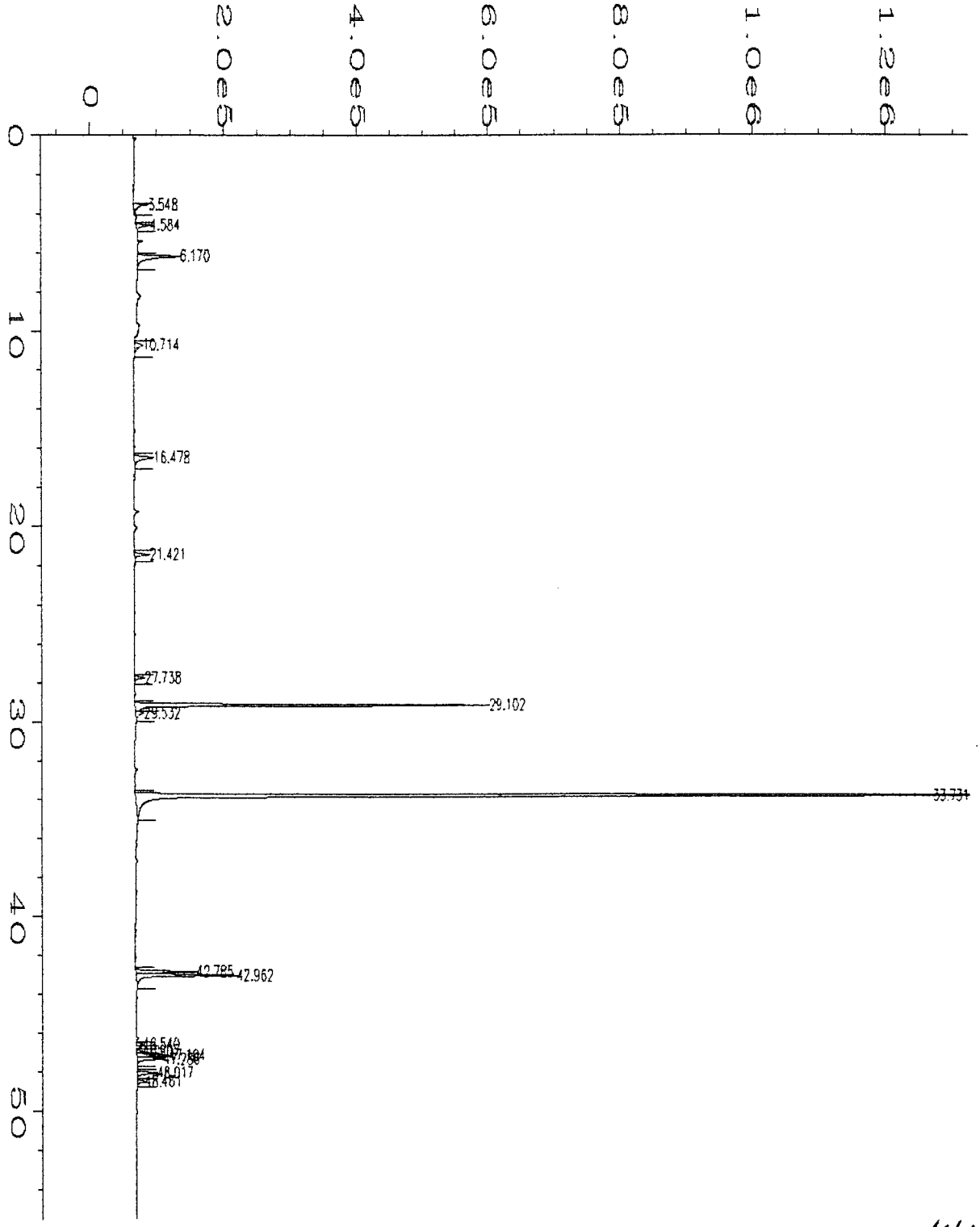
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\064R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13875 DF100
Run Time Bar Code:
Acquired on : 10 Dec 93 05:35 AM
Report Created on: 11 Dec 93 01:57 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 64
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



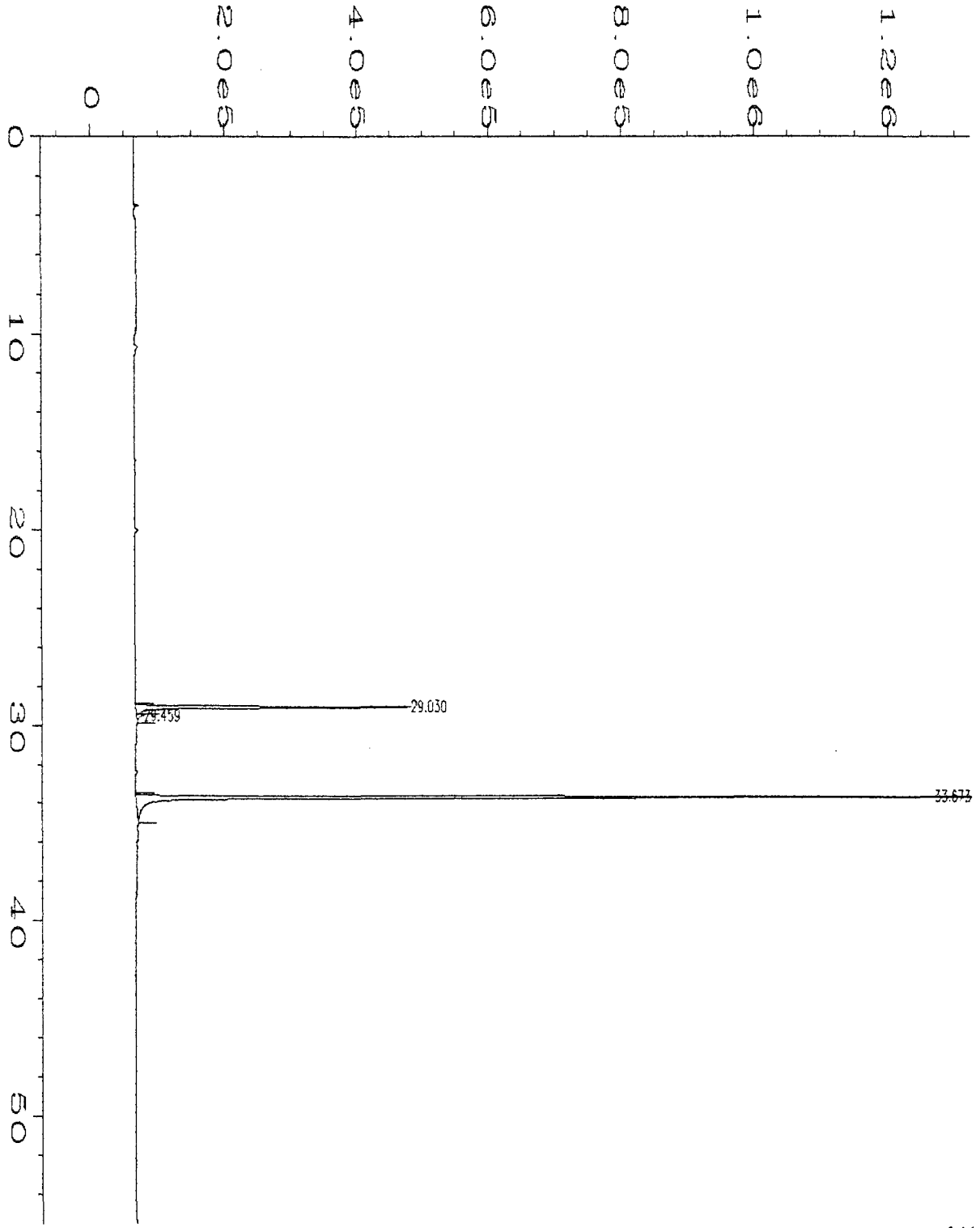
MW-17

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\076R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 76
Sample Name	: 13875 DF500	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 10:30 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:56 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



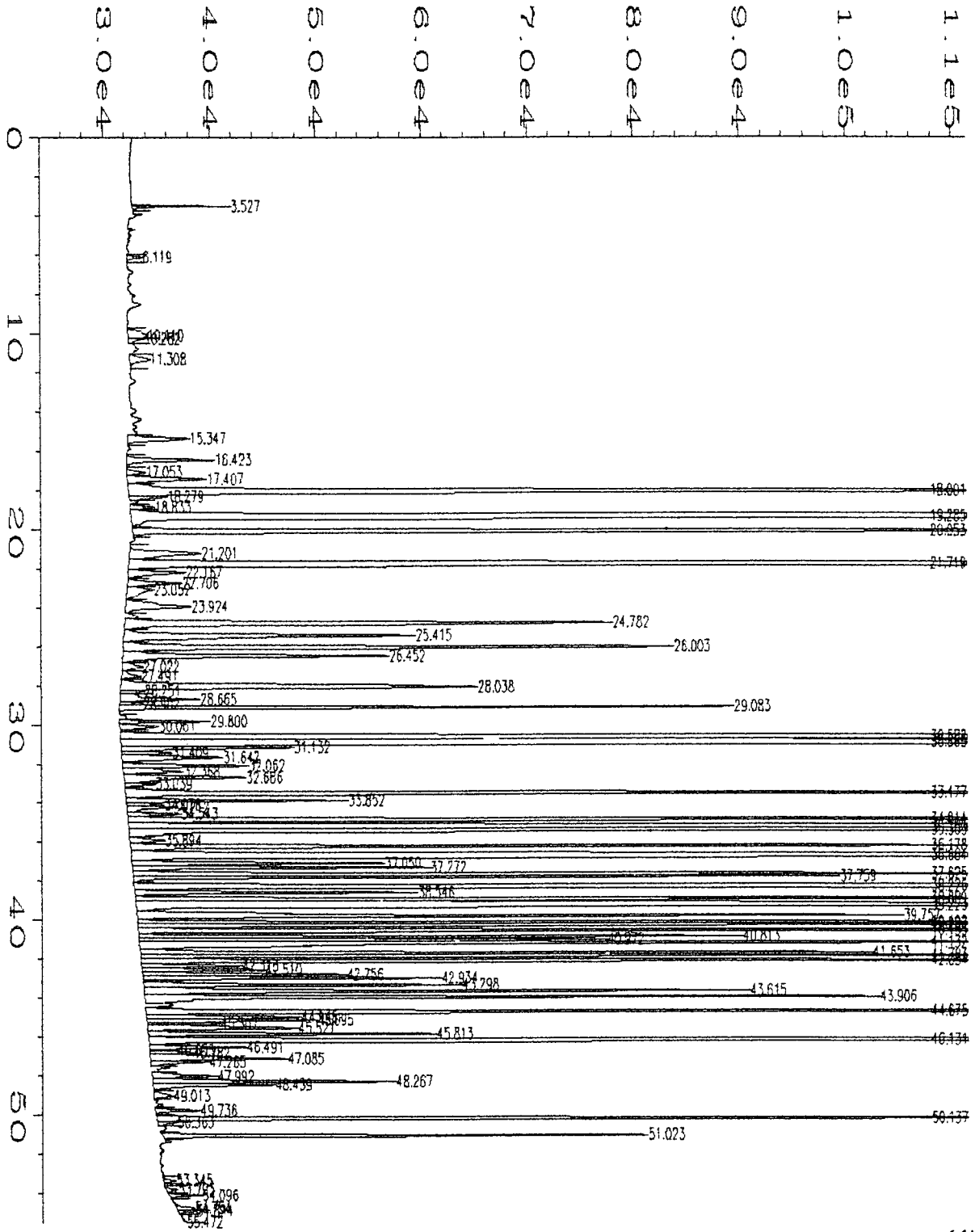
MW-18

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\036F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 36
Sample Name	: 13870	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 12:35 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:45 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



MW-8

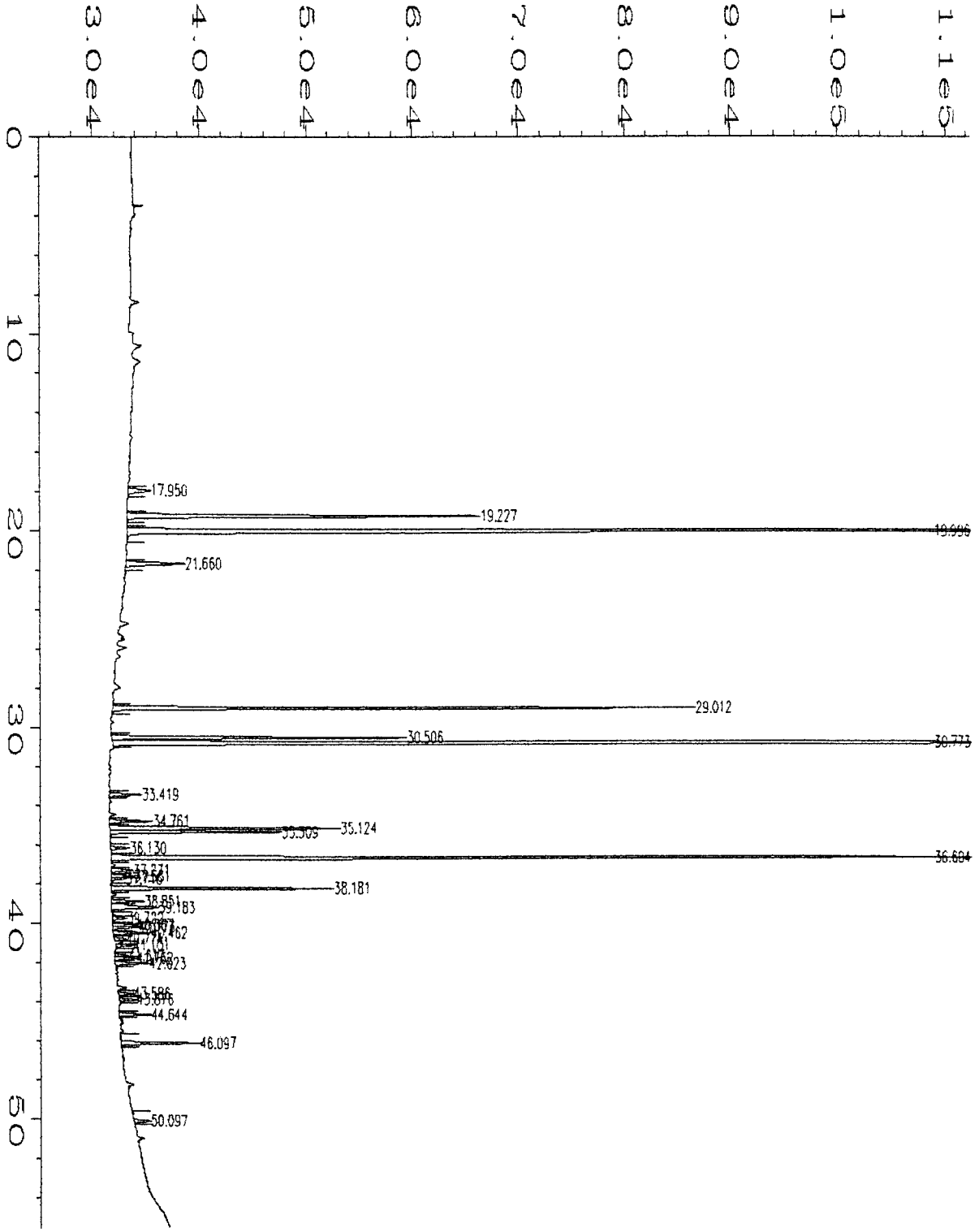
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\045F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 45
Sample Name	: 13870 DF50	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 09 Dec 93 01:43 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:48 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



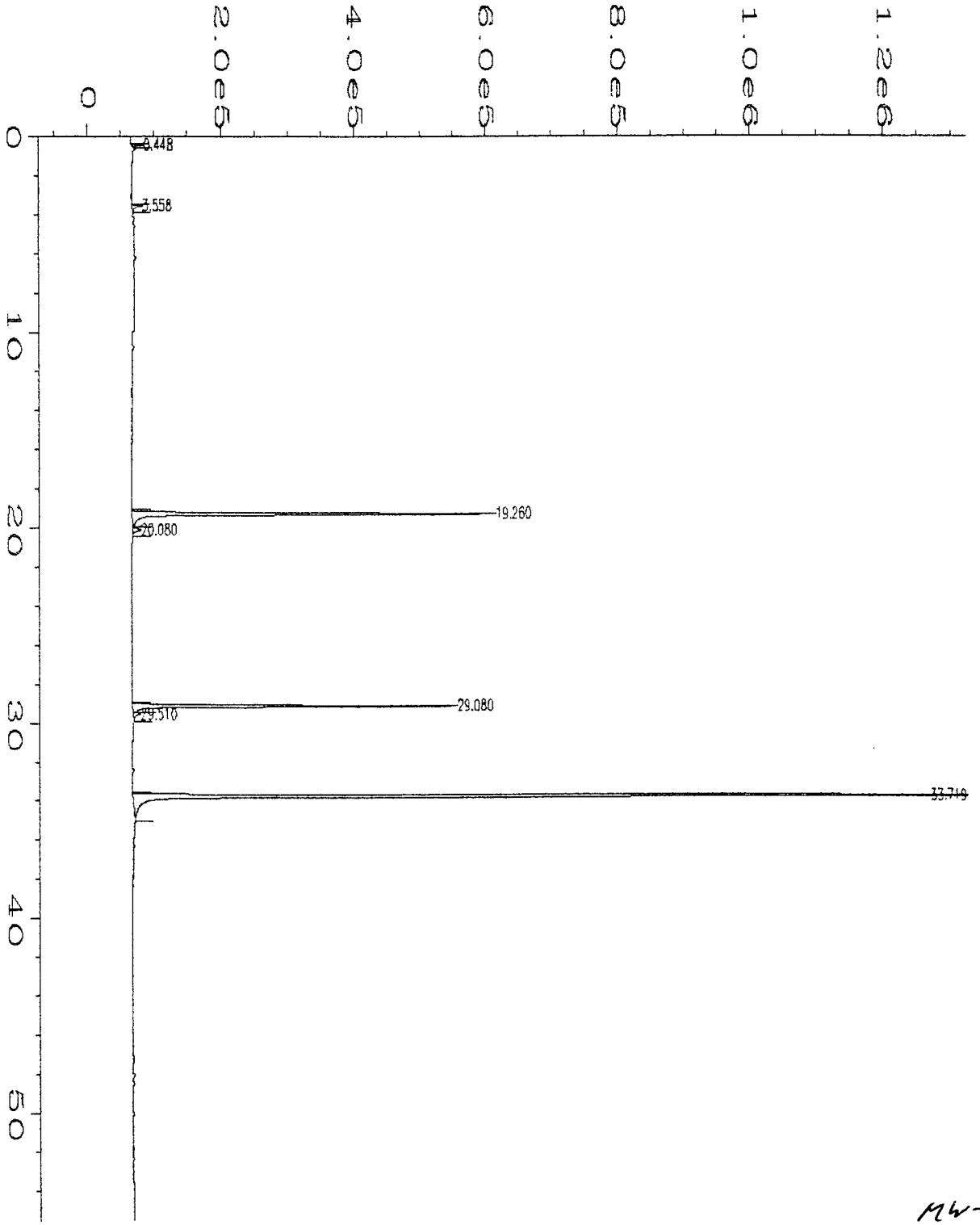
MW-4

Data File Name : C:\HPCHEM\1\DATA\03DECVOL\036R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13870
Run Time Bar Code:
Acquired on : 08 Dec 93 12:35 PM
Report Created on: 11 Dec 93 02:02 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 36
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10

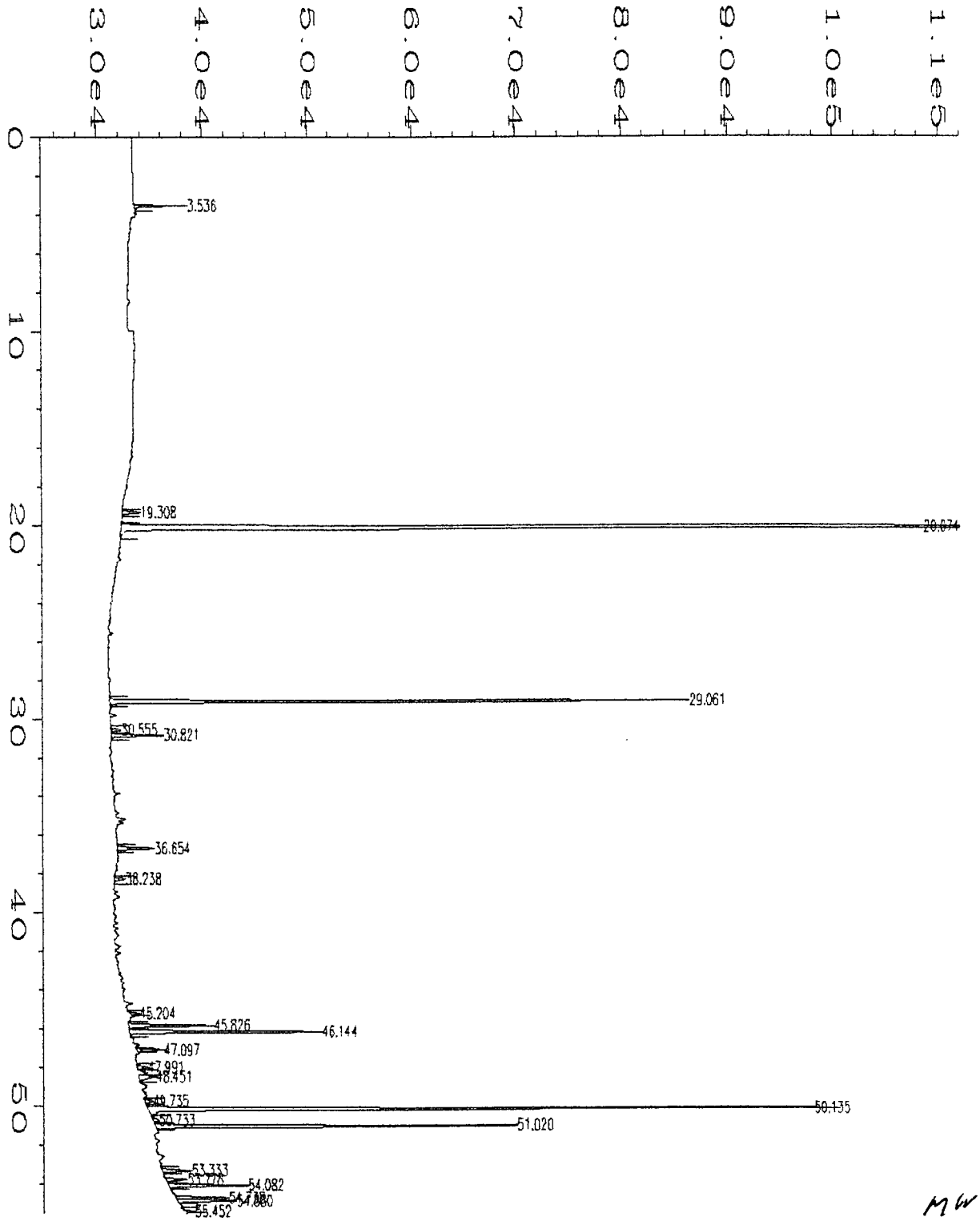


Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\045R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 45
Sample Name	: 13870 DF50	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 09 Dec 93 01:43 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 02:01 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



MW-19

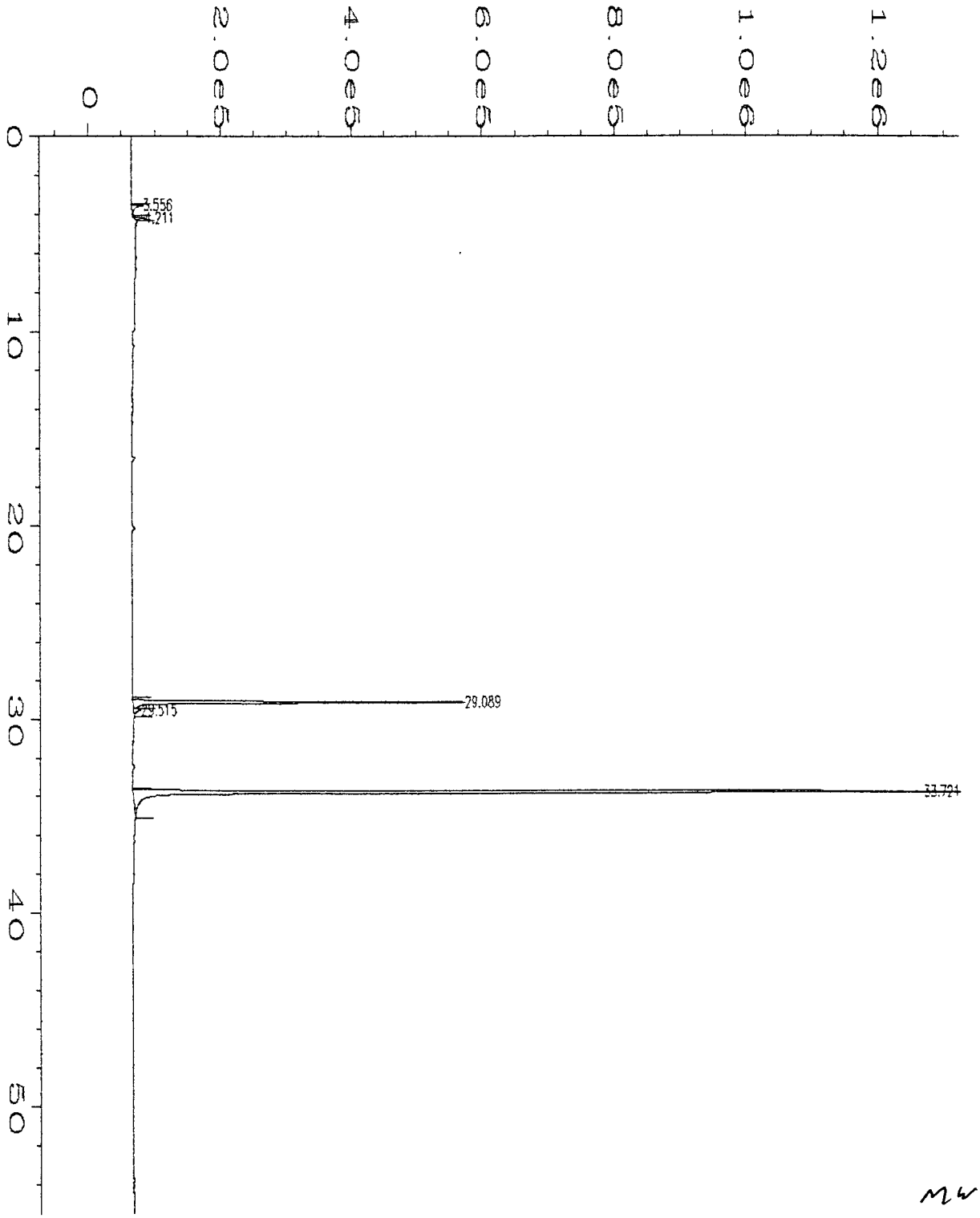
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\037F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 37
Sample Name	: 13871	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 01:39 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:46 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



MW-19

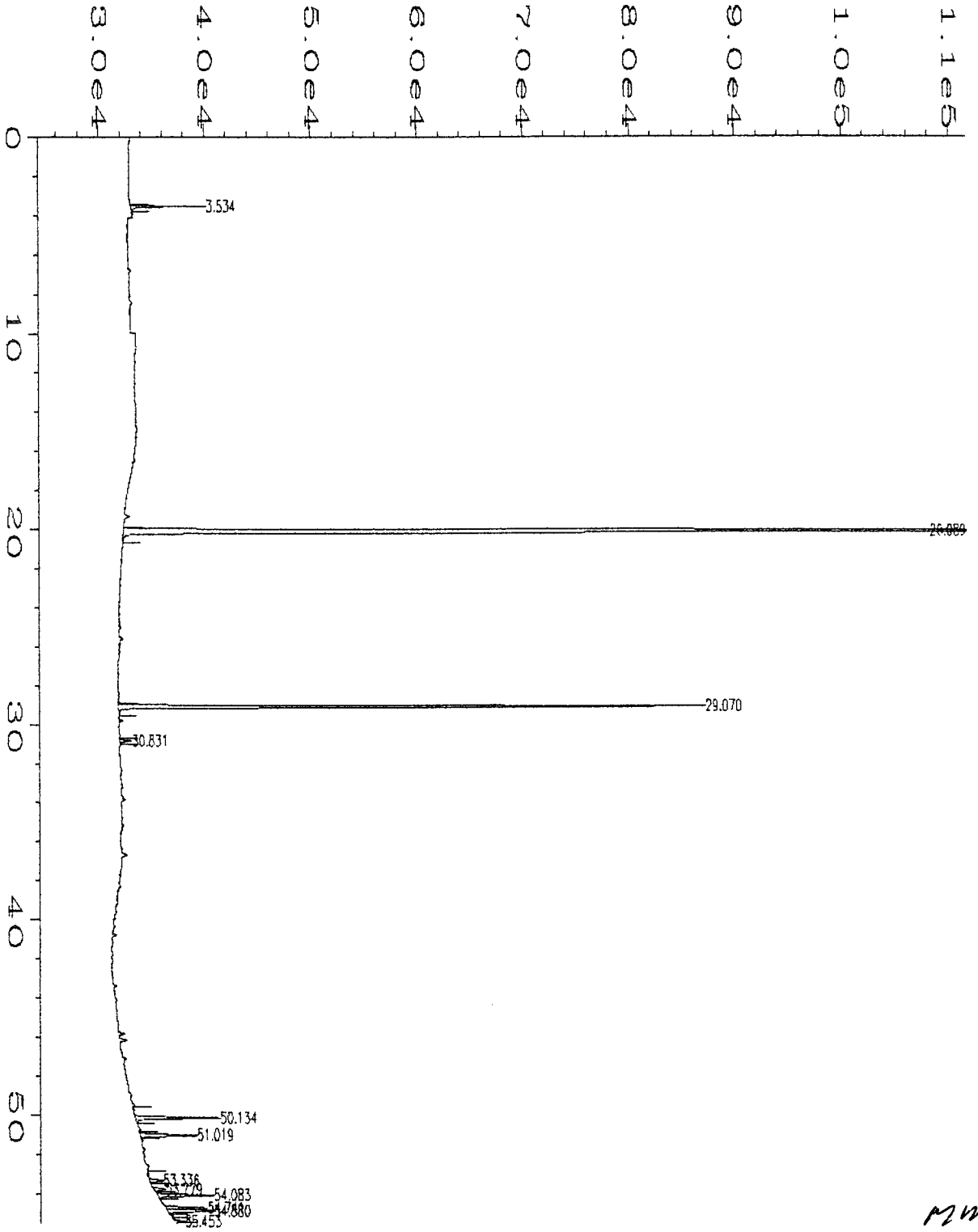
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\037R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13871
Run Time Bar Code:
Acquired on : 08 Dec 93 01:39 PM
Report Created on: 11 Dec 93 02:00 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 37
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



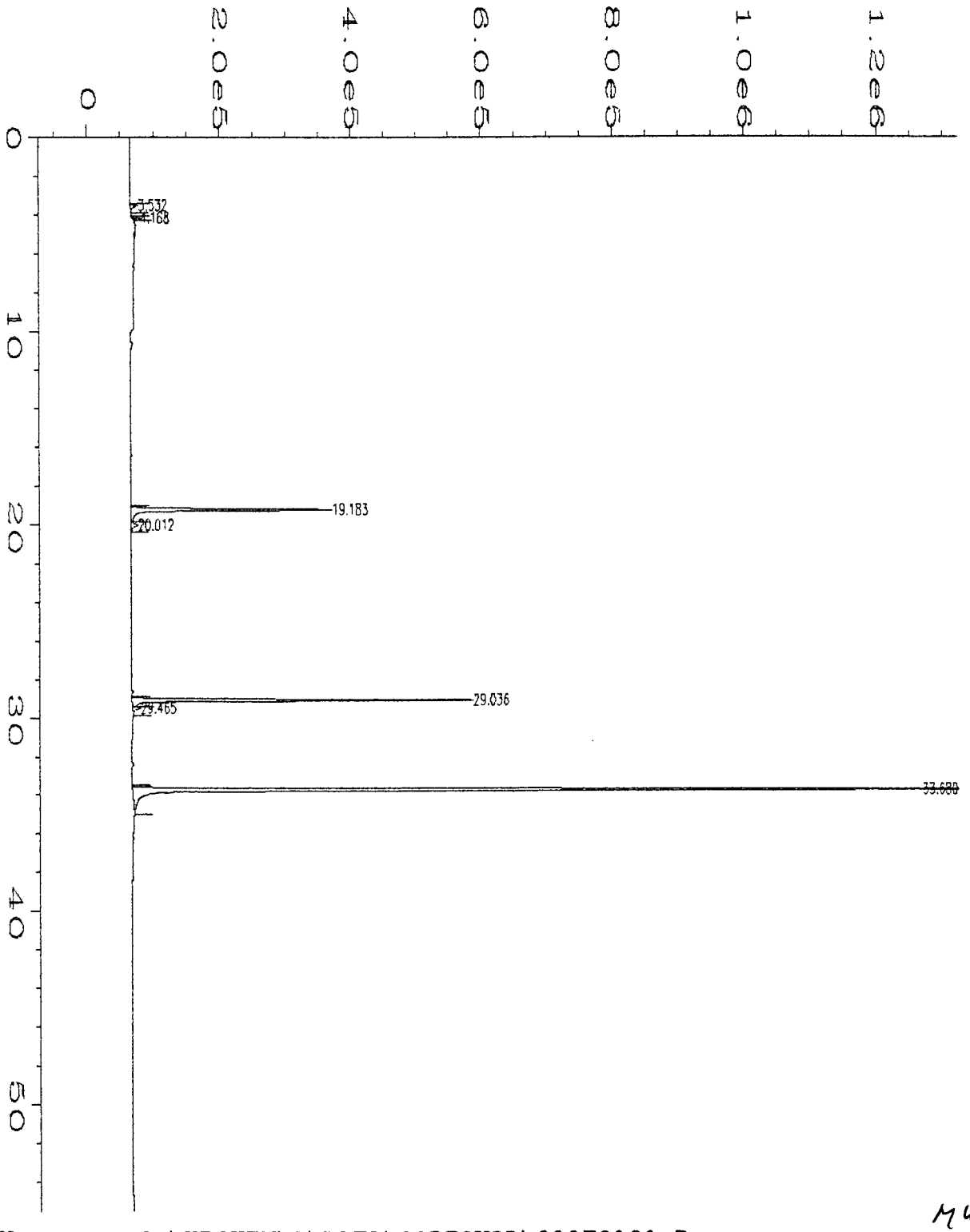
MW-20

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\038F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 38
Sample Name	: 13872	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 02:43 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:48 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



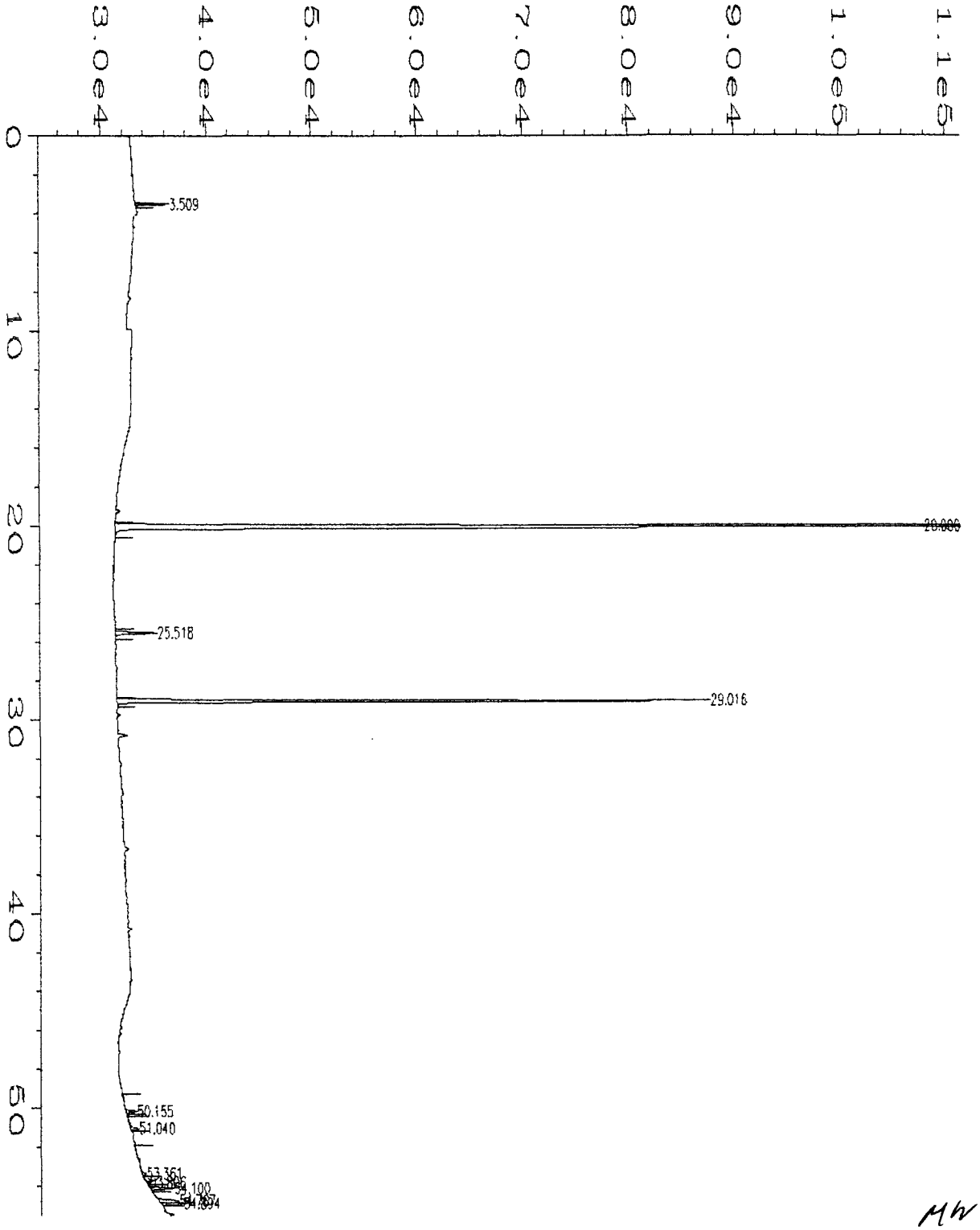
MW-20

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\038R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 38
Sample Name	: 13872	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 02:43 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 02:00 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



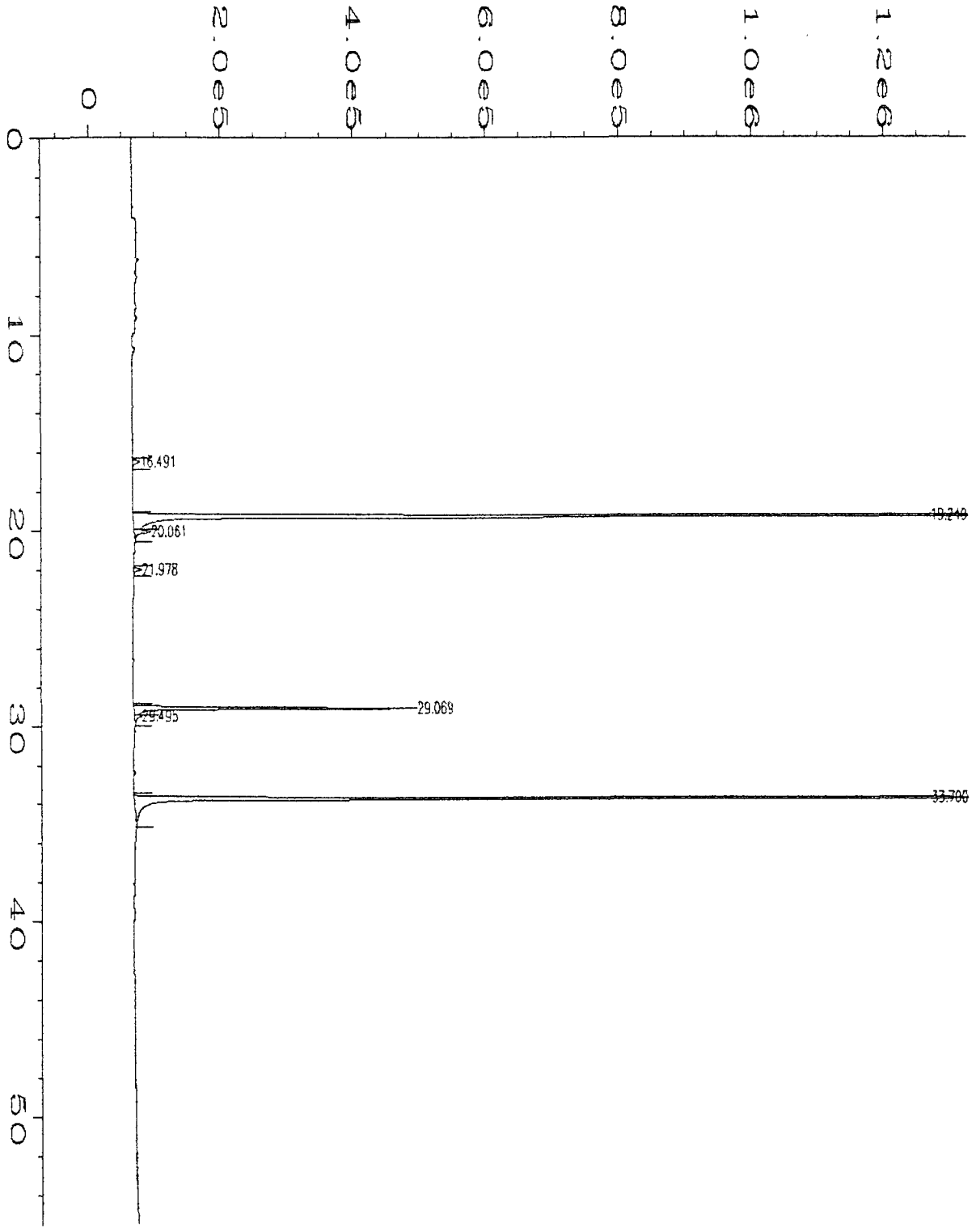
MW-21

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\039F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 39
Sample Name	: 13873	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 03:47 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:49 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



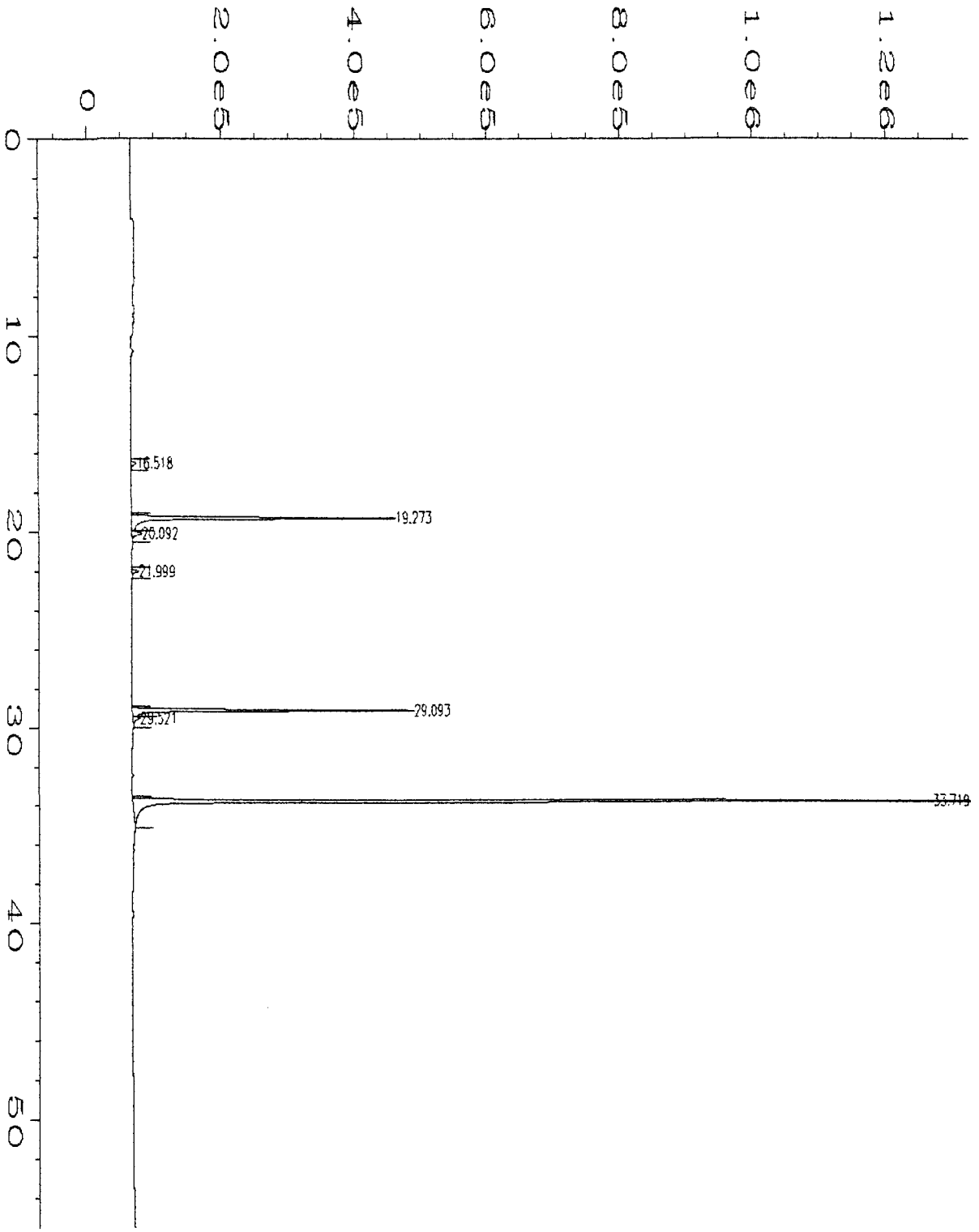
MW-21

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\039R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 39
Sample Name	: 13873	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 03:47 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:59 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



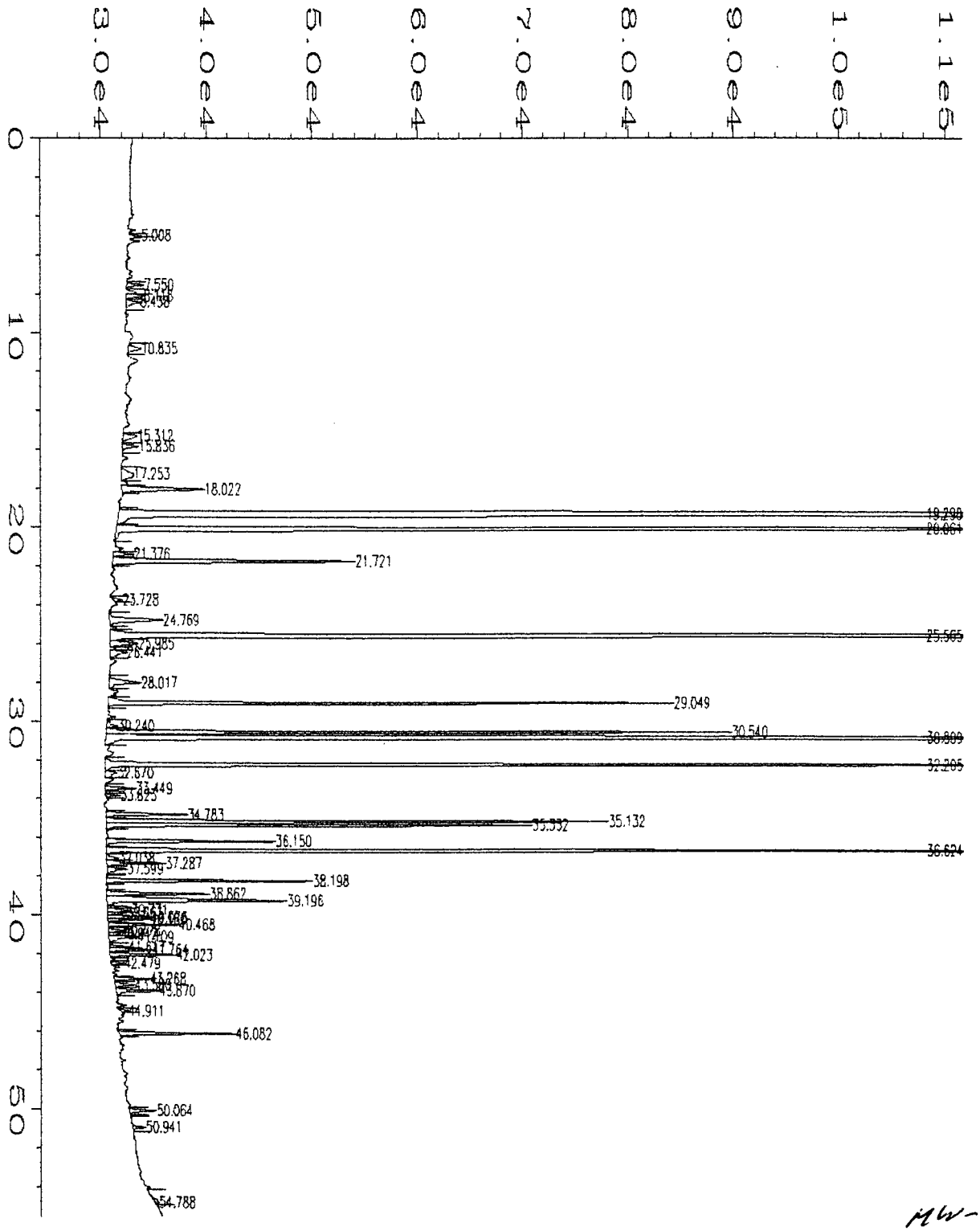
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\065F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 65
Sample Name	: 13876 DF100	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 06:40 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:52 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

MW-22



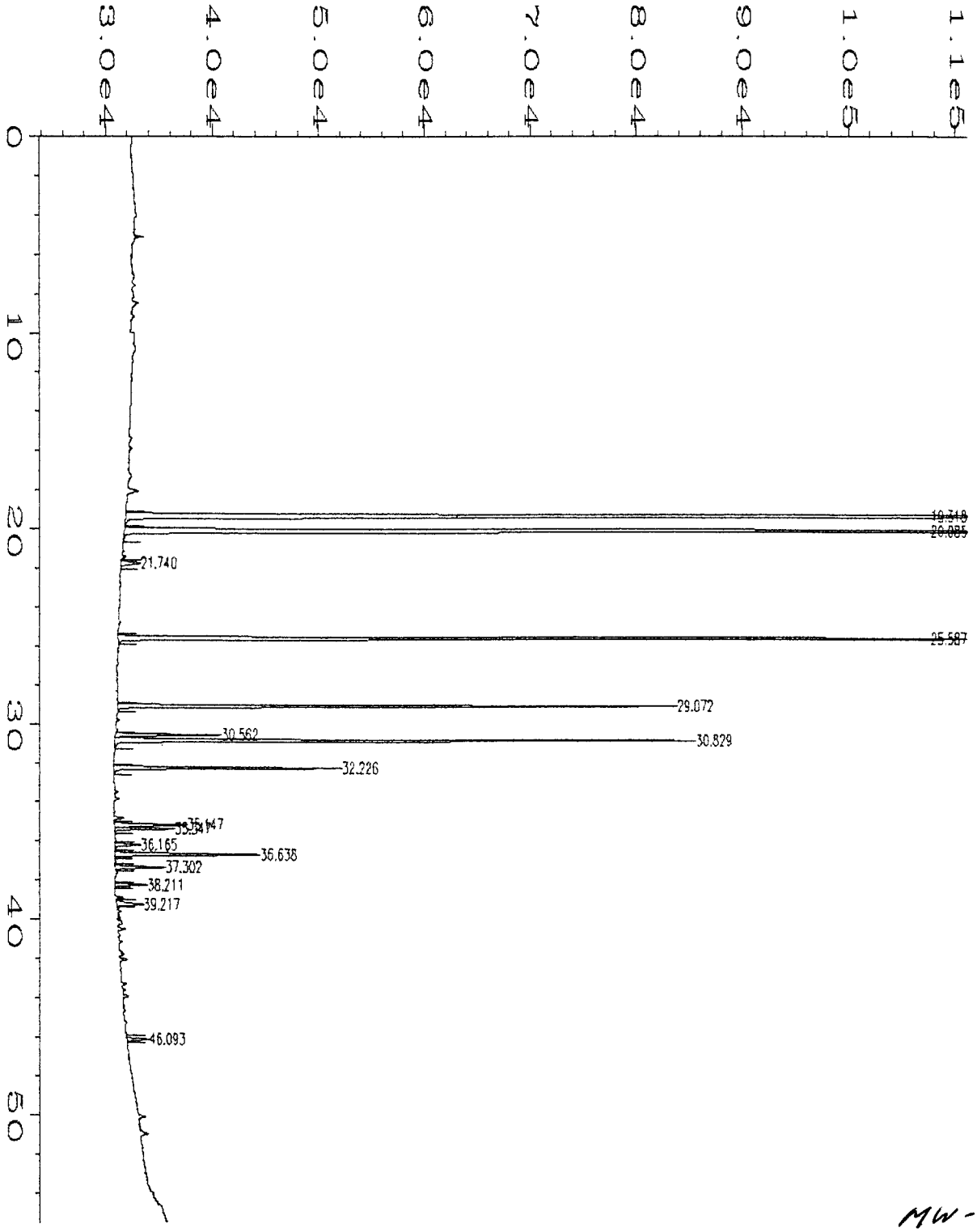
MW-22

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\077F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 77
Sample Name	: 13876 DF500	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 11:34 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:53 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



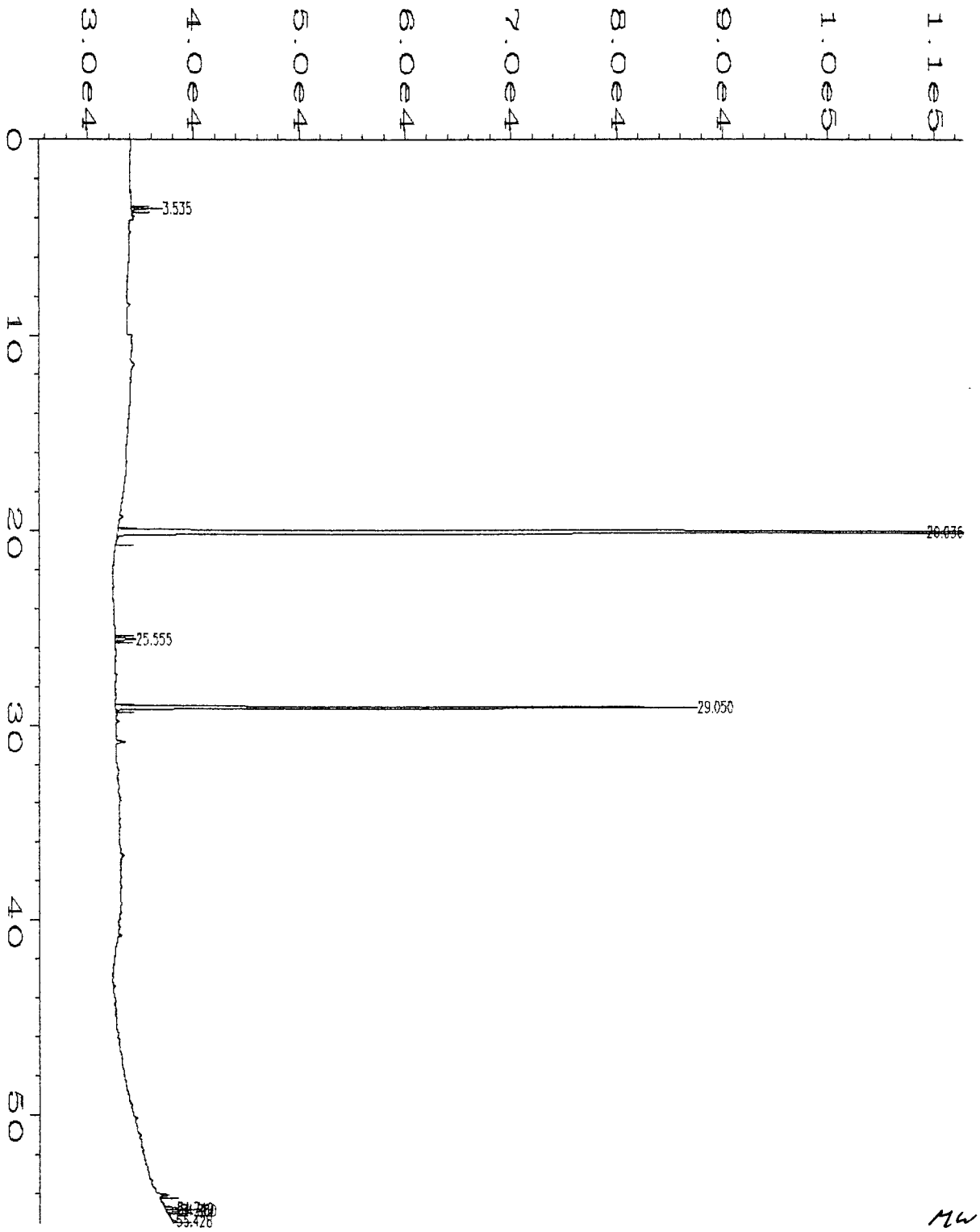
MW-22

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\065R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 65
Sample Name	: 13876 DF100	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 06:40 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:56 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



MW-22

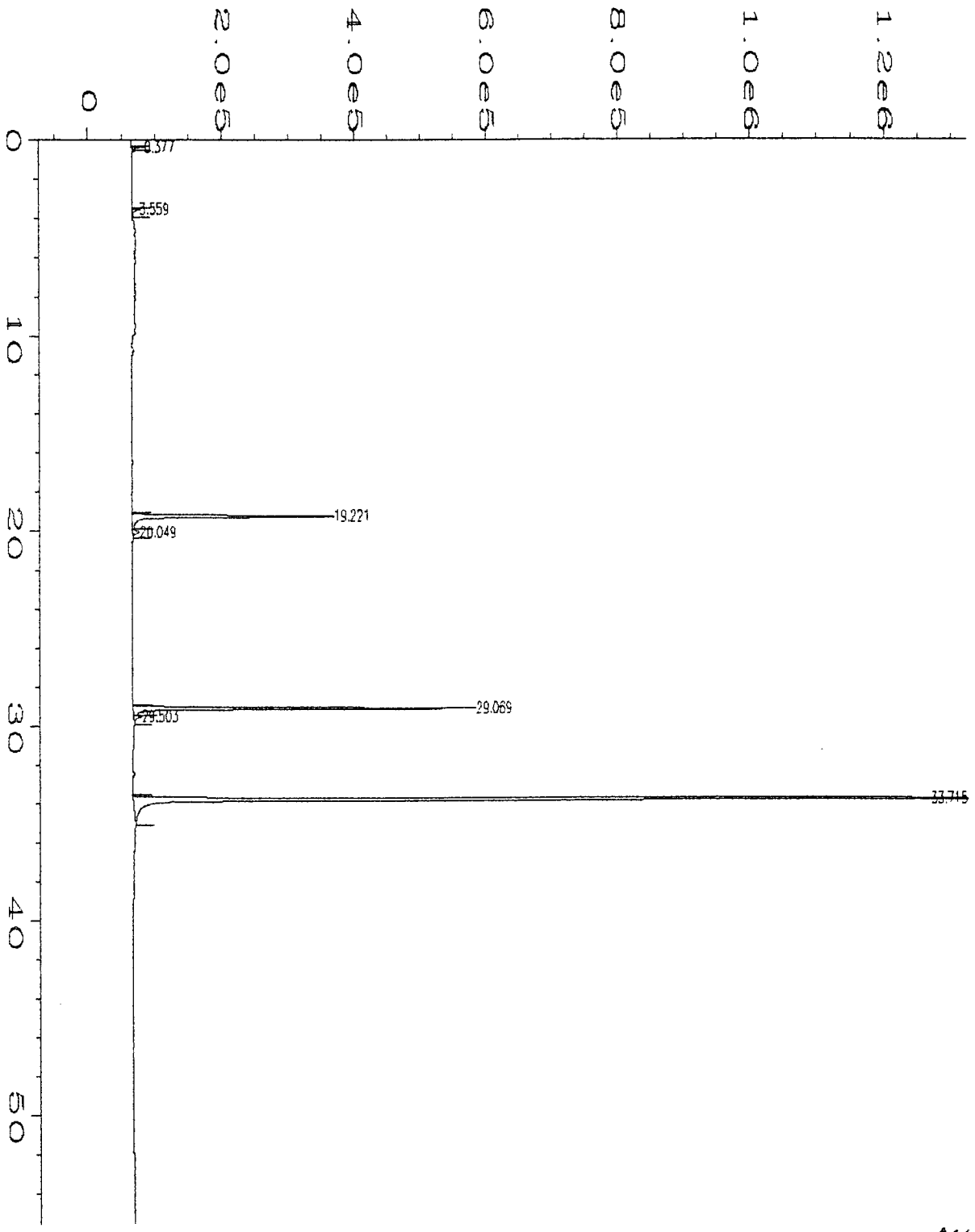
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\077R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 77
Sample Name	: 13876 DF500	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 11:34 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:54 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



MW-25

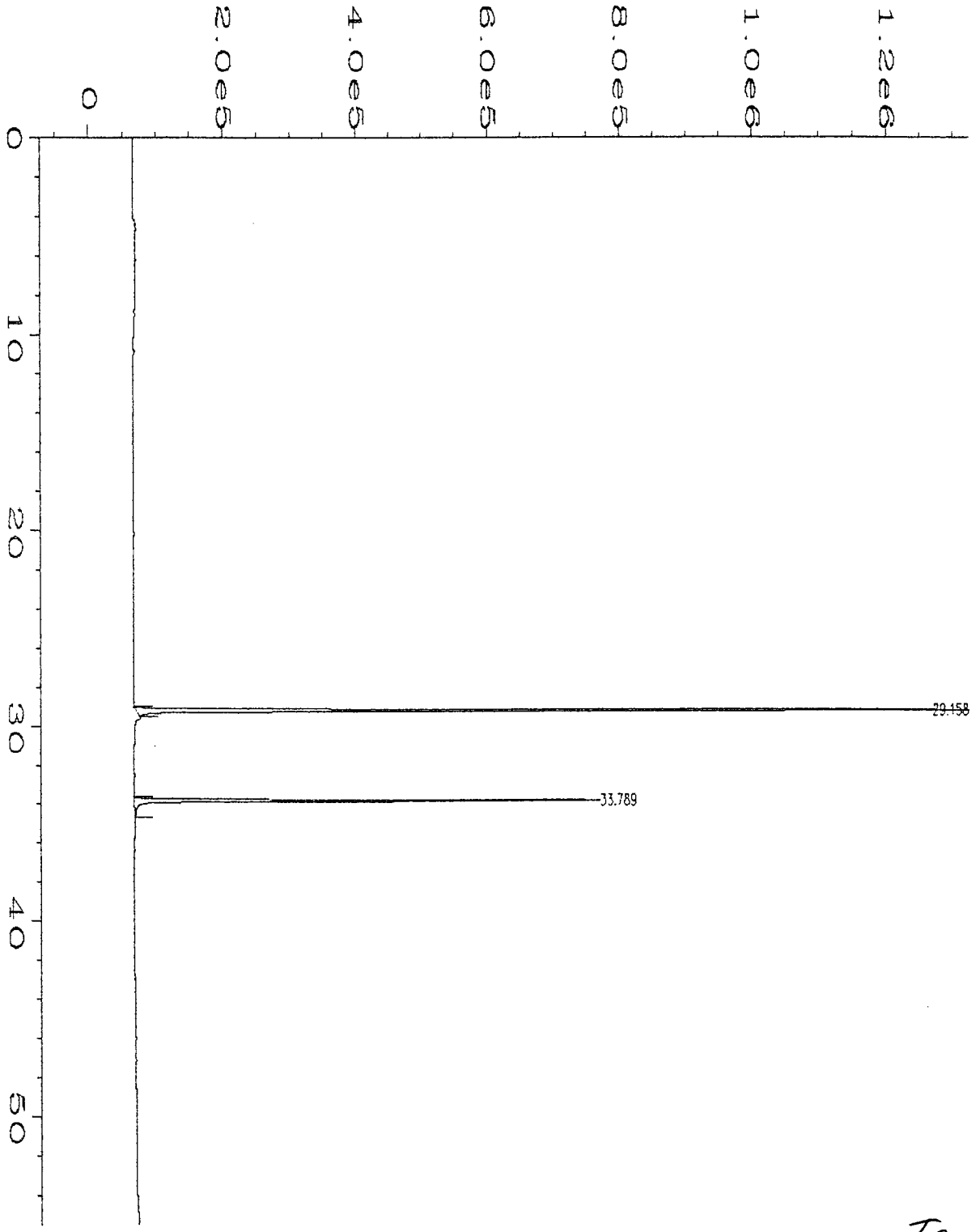
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\040R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13874
Run Time Bar Code:
Acquired on : 08 Dec 93 04:52 PM
Report Created on: 11 Dec 93 01:59 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 40
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



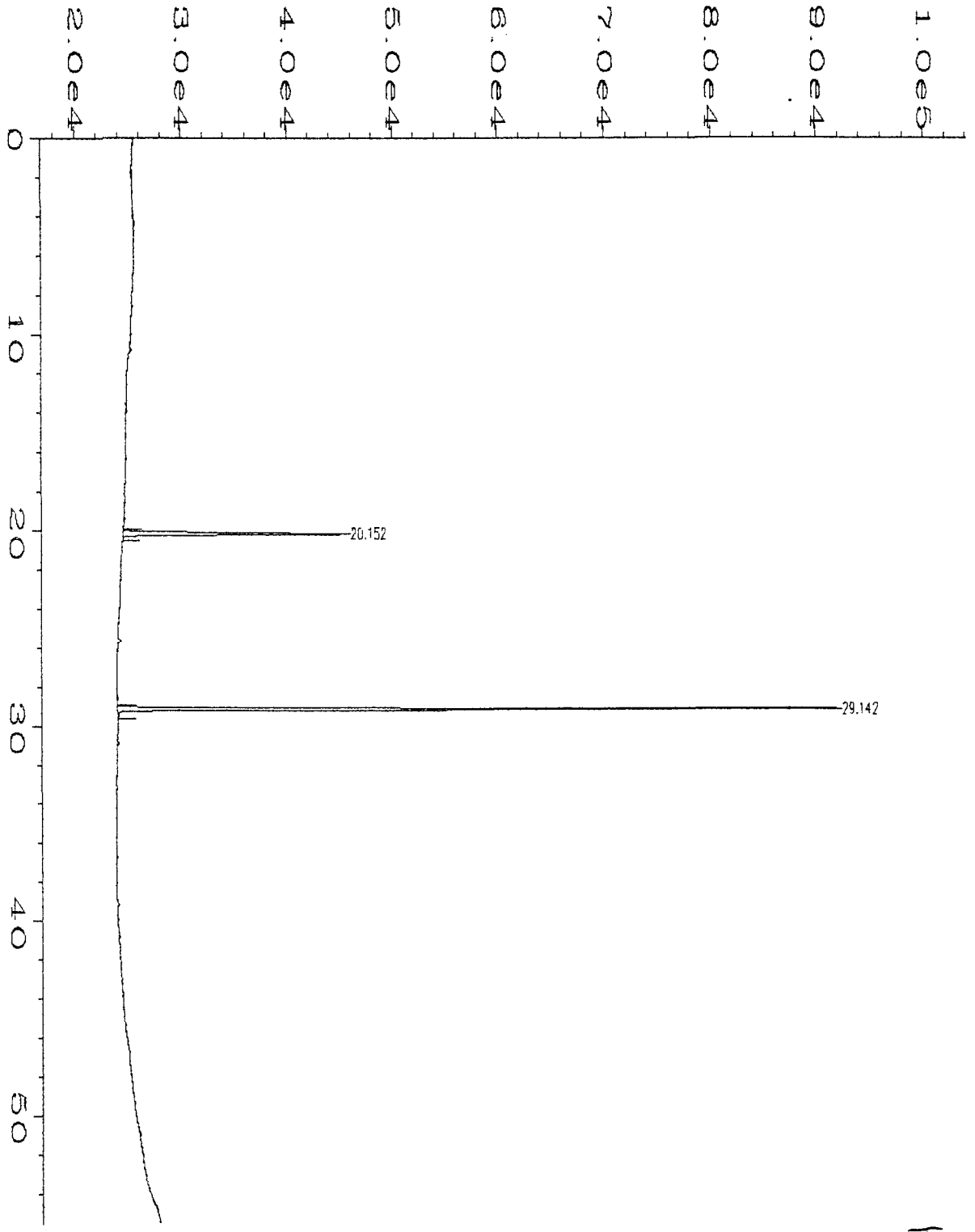
MW-25

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\040F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 40
Sample Name	: 13874	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 08 Dec 93 04:52 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 01:49 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



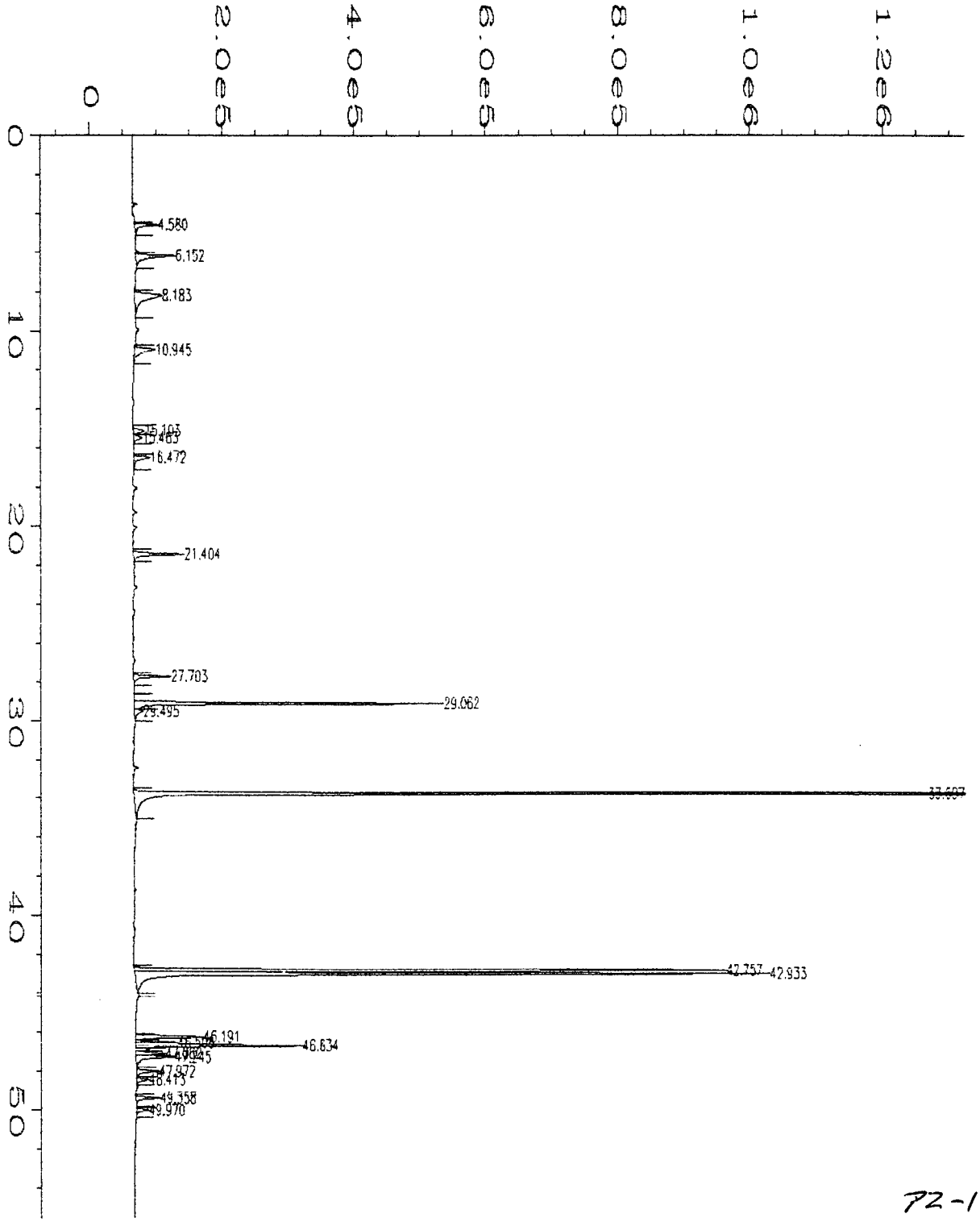
Trip Blank

Data File Name	: C:\HPCHEM\1\DATA\28NOVVOL\061F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 61
Sample Name	: 13877 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 03 Dec 93 00:24 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 02:14 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



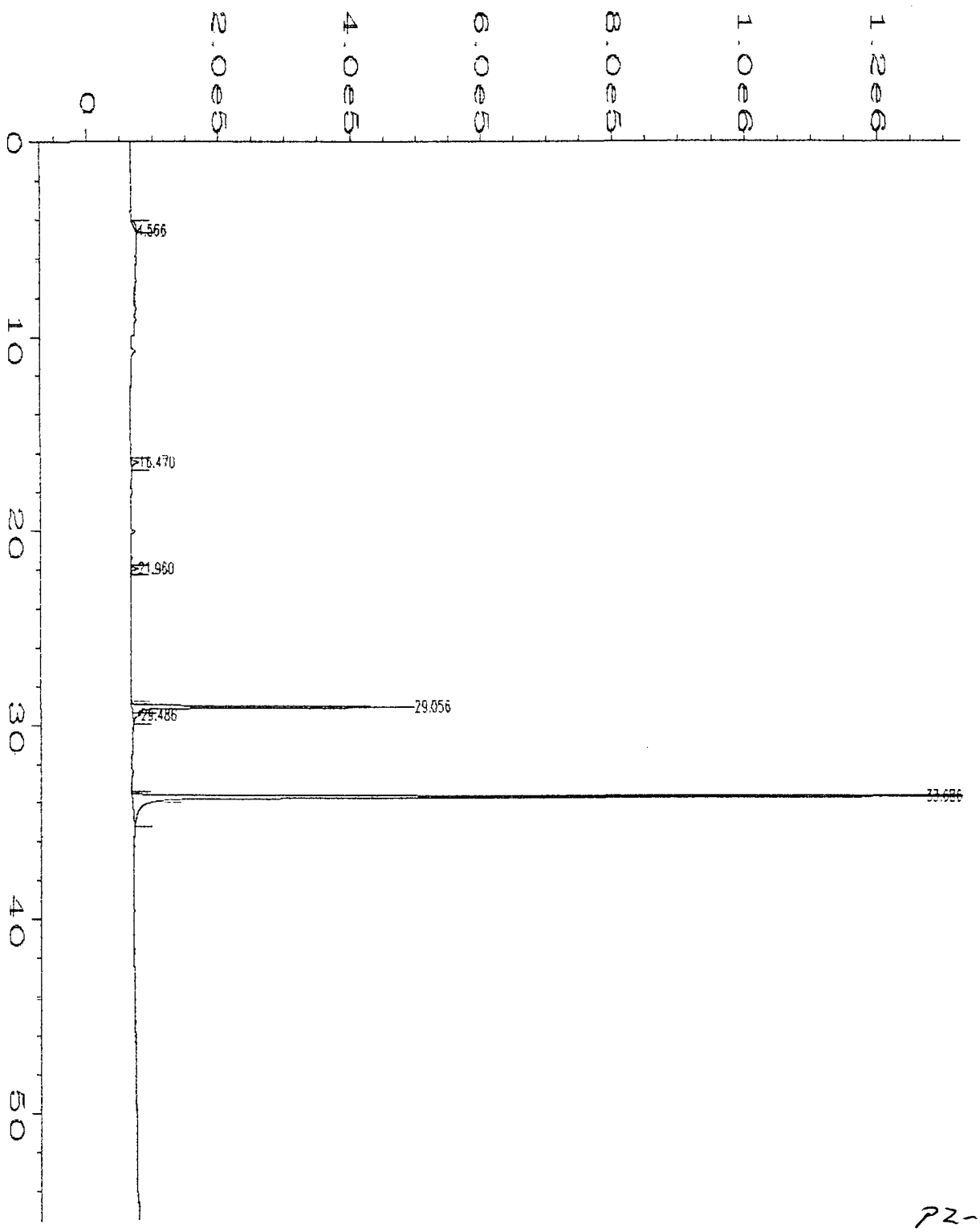
Trip Blank

Data File Name	: C:\HPCHEM\1\DATA\28NOVVOL\061R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 61
Sample Name	: 13877 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 03 Dec 93 00:24 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 11 Dec 93 02:13 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



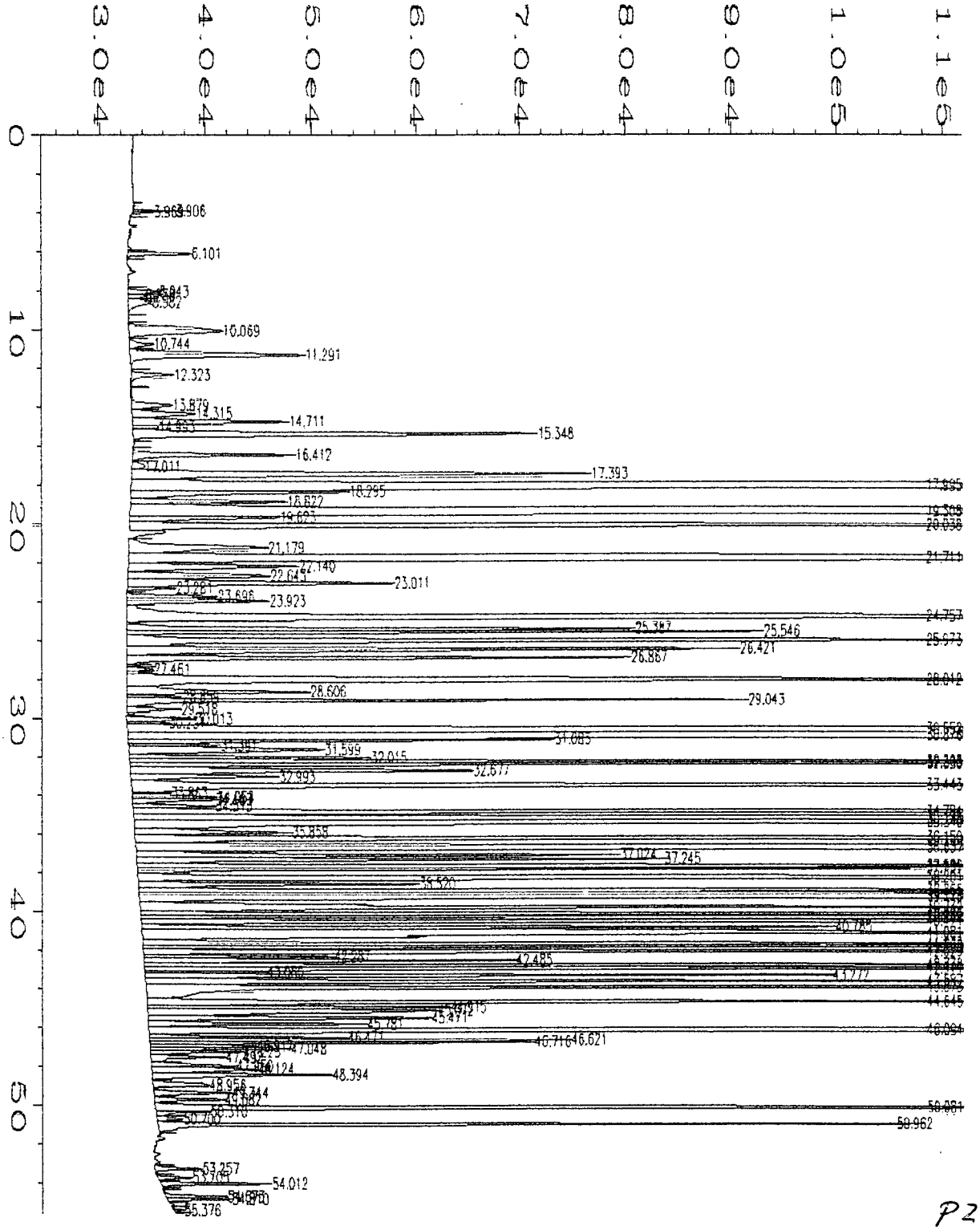
PZ-1

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\049F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 49
Sample Name	: 13859 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 09 Dec 93 06:02 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:47 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



P2-1

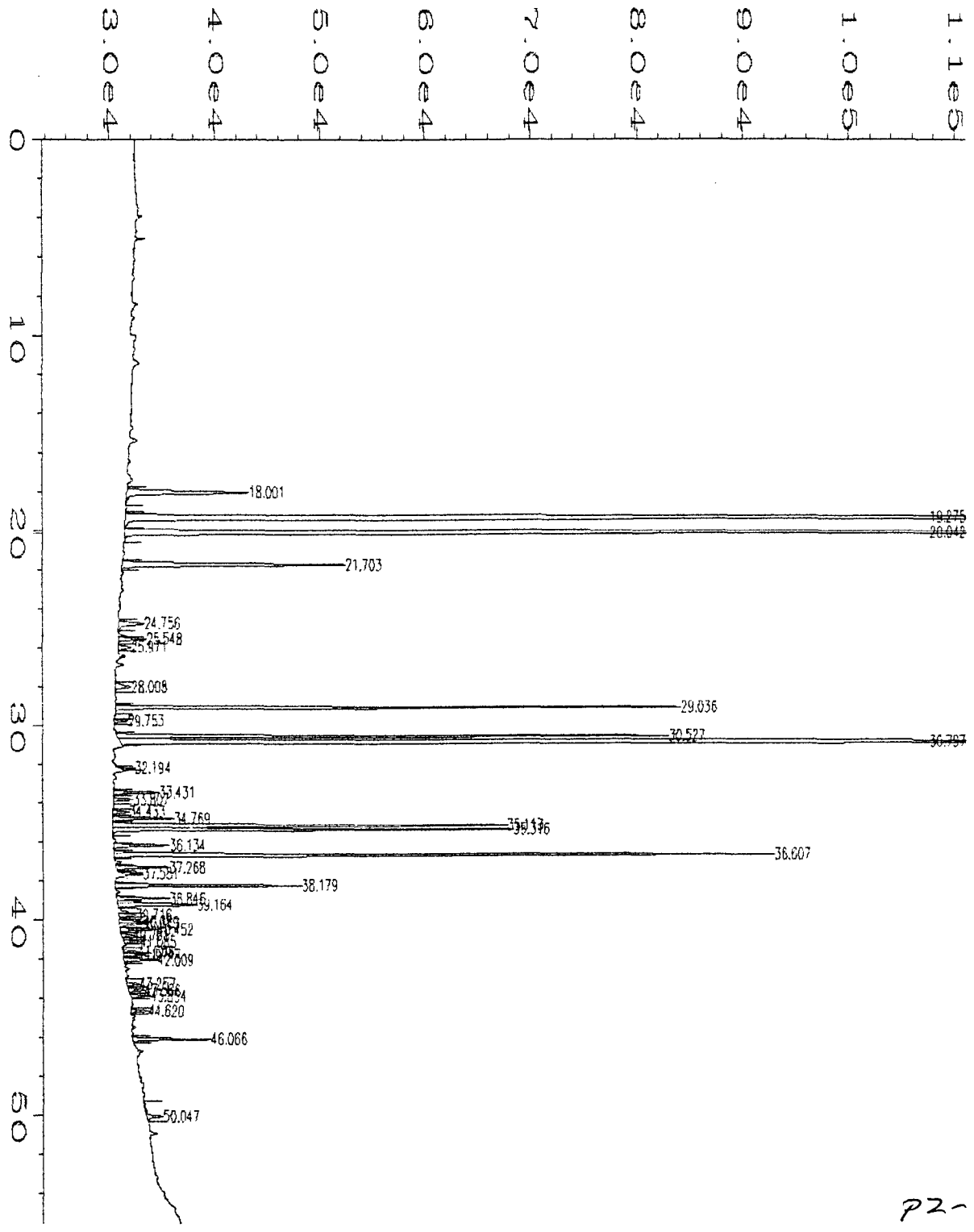
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\061F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 61
Sample Name	: 13859 DF50	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 02:22 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:48 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



P2-1

Data File Name : C:\HPCHEM\1\DATA\03DECVOL\049R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13859 DF1
Run Time Bar Code:
Acquired on : 09 Dec 93 06:02 AM
Report Created on: 13 Dec 93 02:58 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

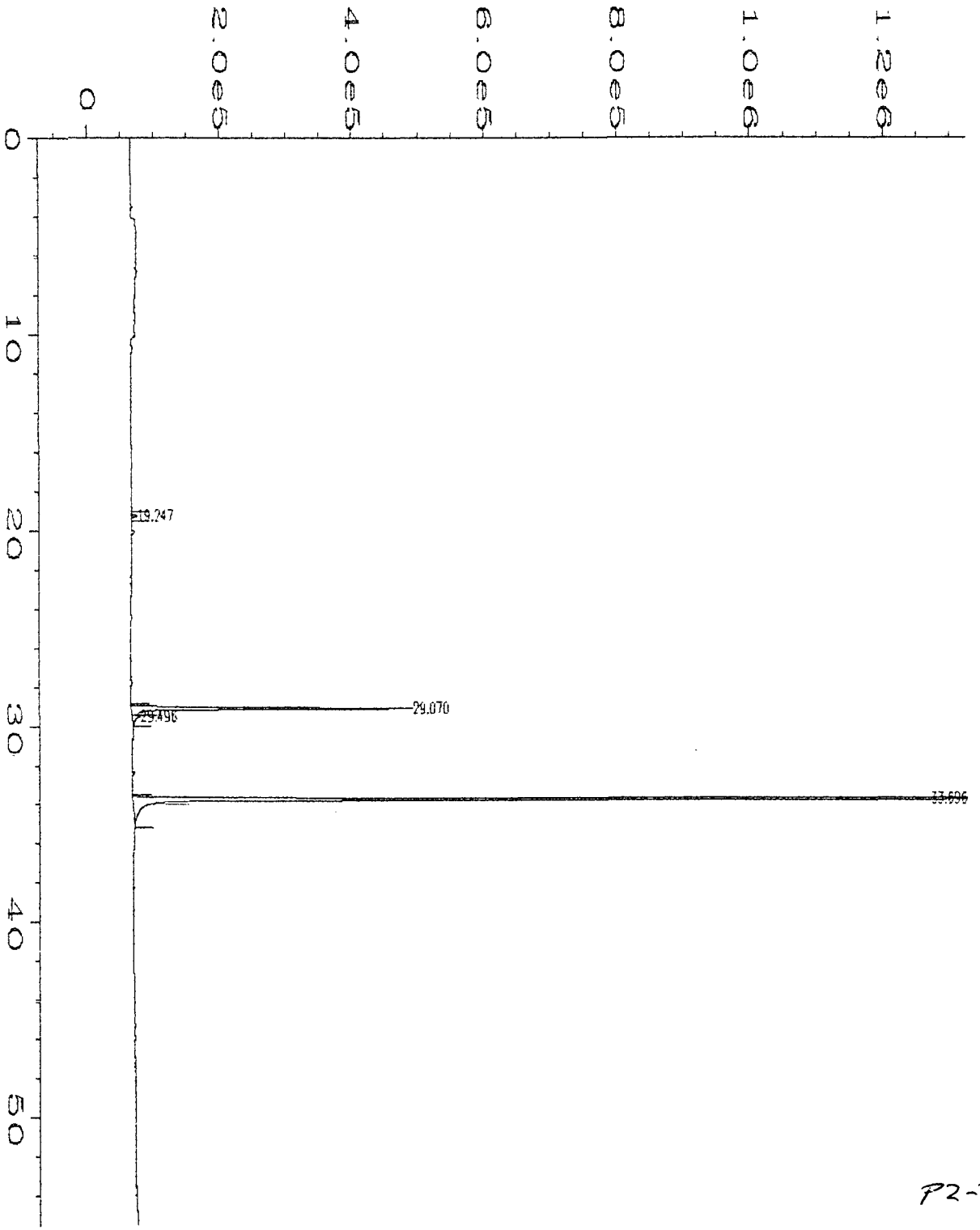
Page Number : 1
Vial Number : 49
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



P2-1

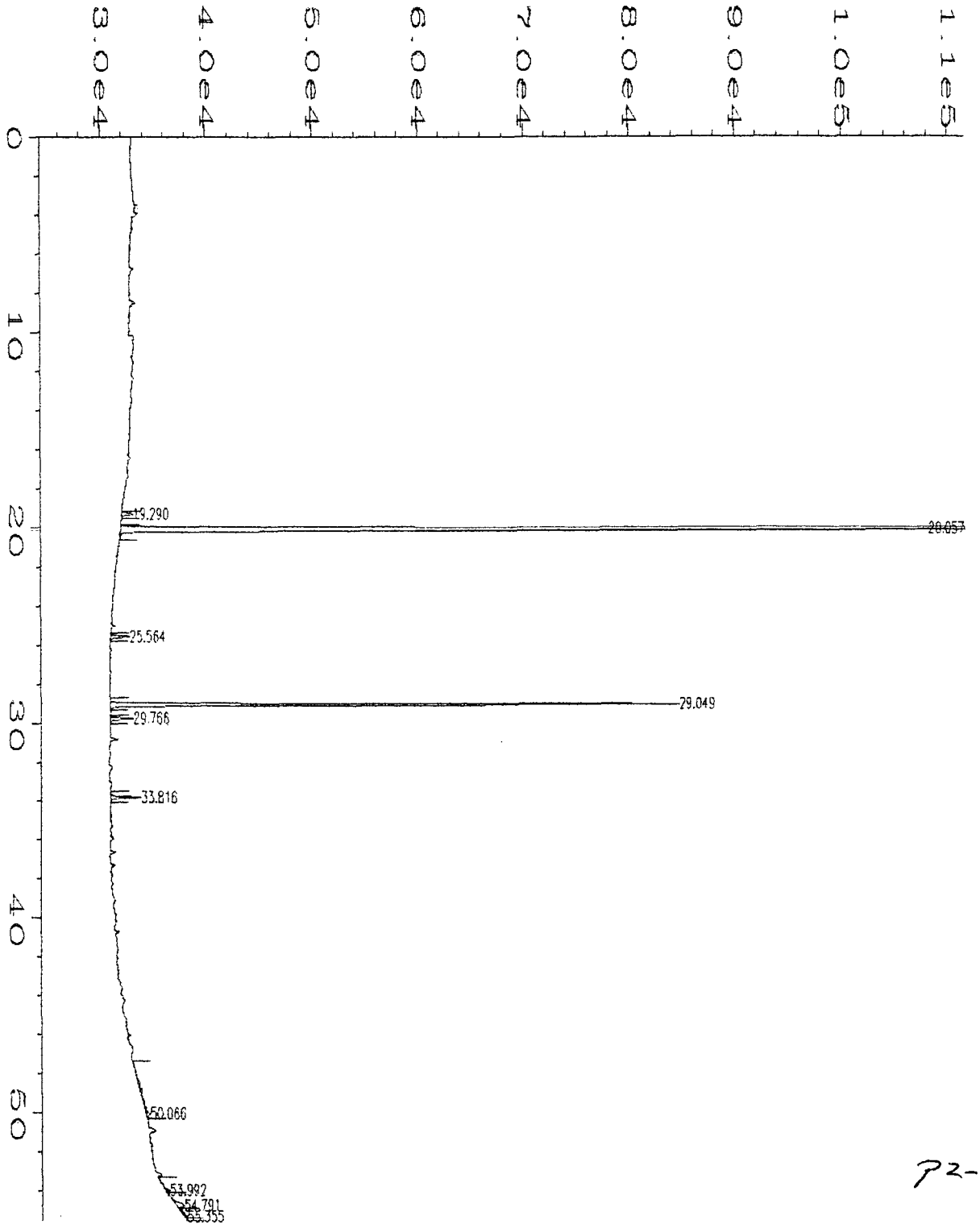
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\061R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13859 DF50
Run Time Bar Code:
Acquired on : 10 Dec 93 02:22 AM
Report Created on: 13 Dec 93 03:01 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 61
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



P2-2

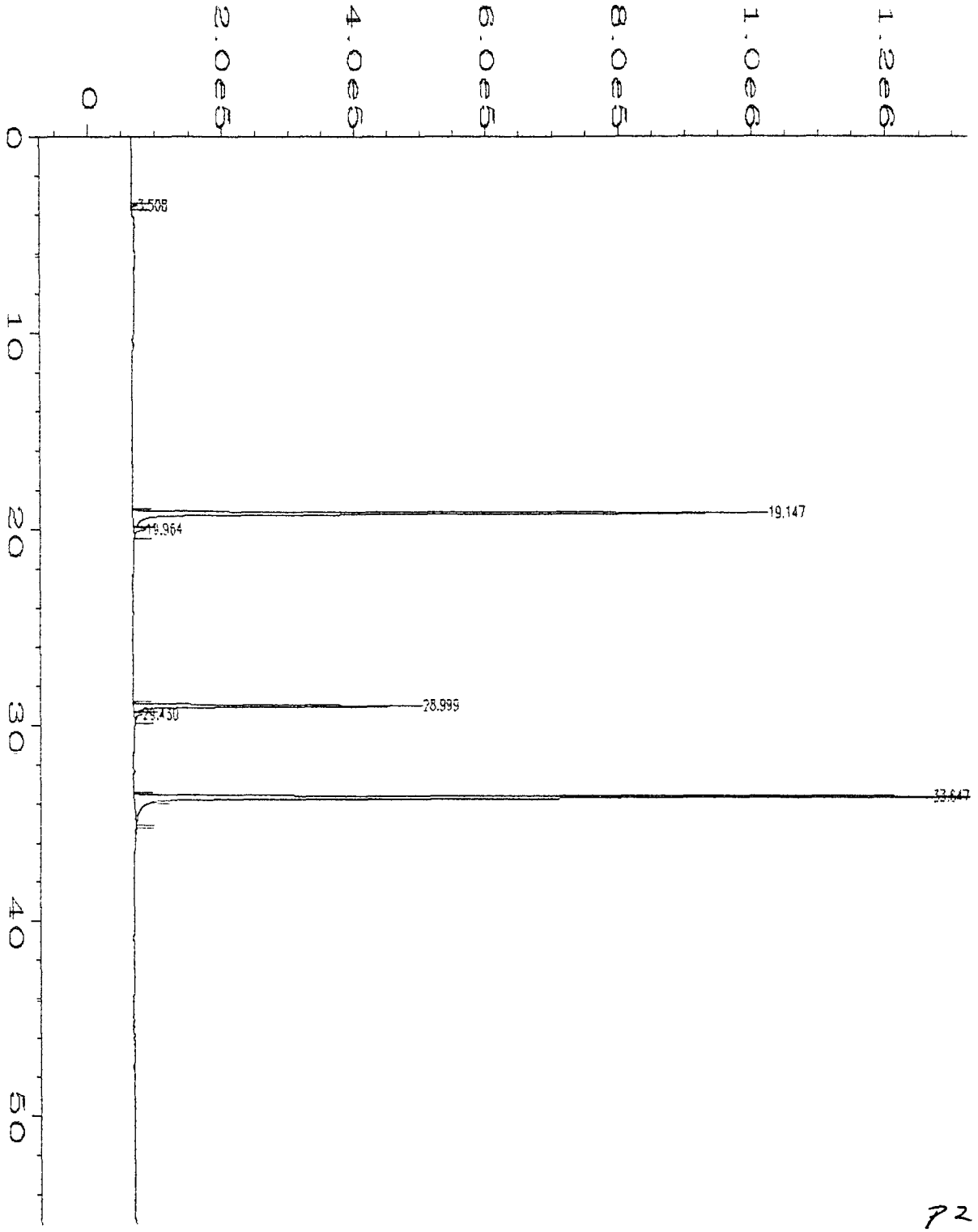
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\059F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 59
Sample Name	: 13860 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 00:13 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:48 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



P2-2

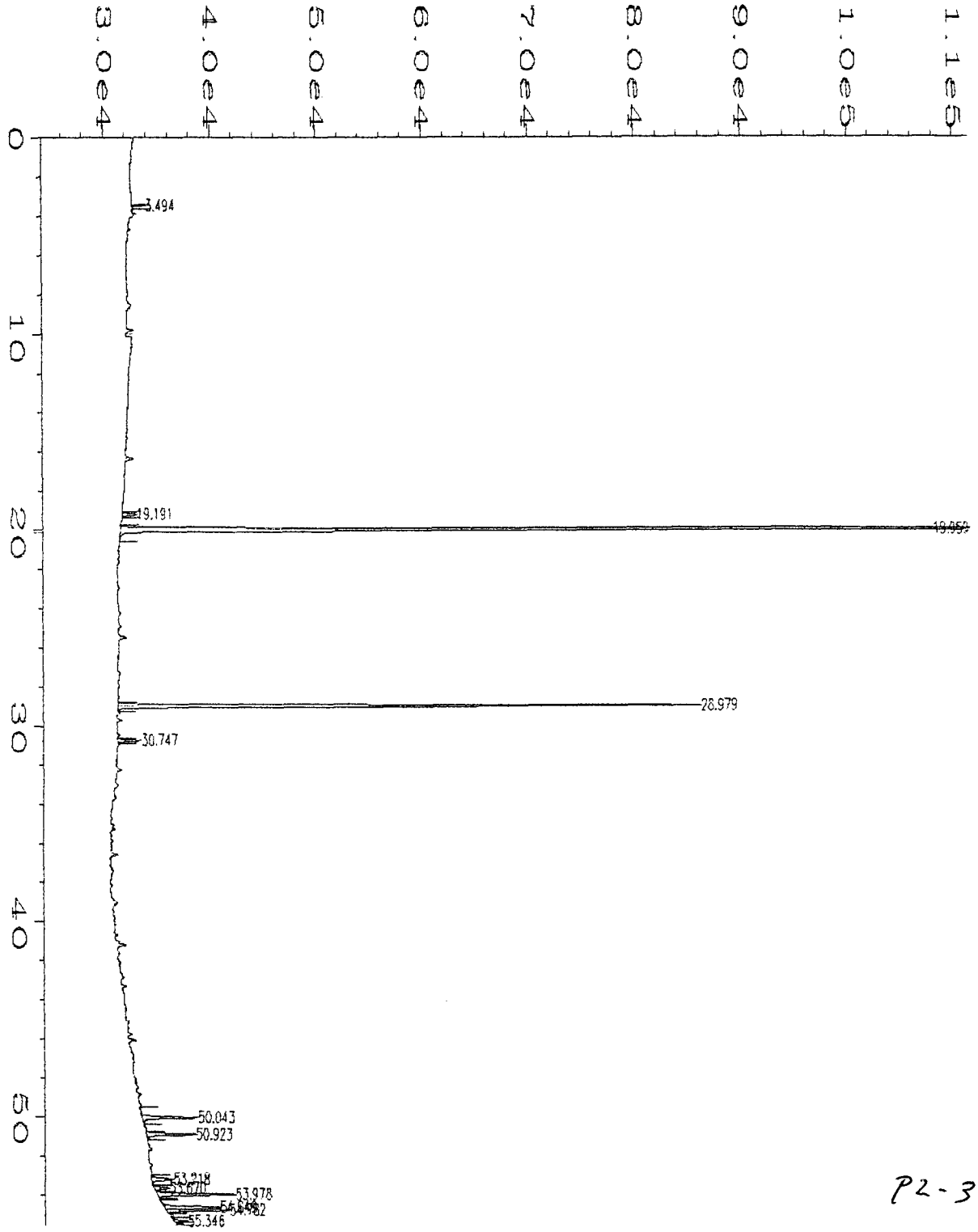
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\059R0101.D

Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 59
Sample Name	: 13860 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 00:13 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:56 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



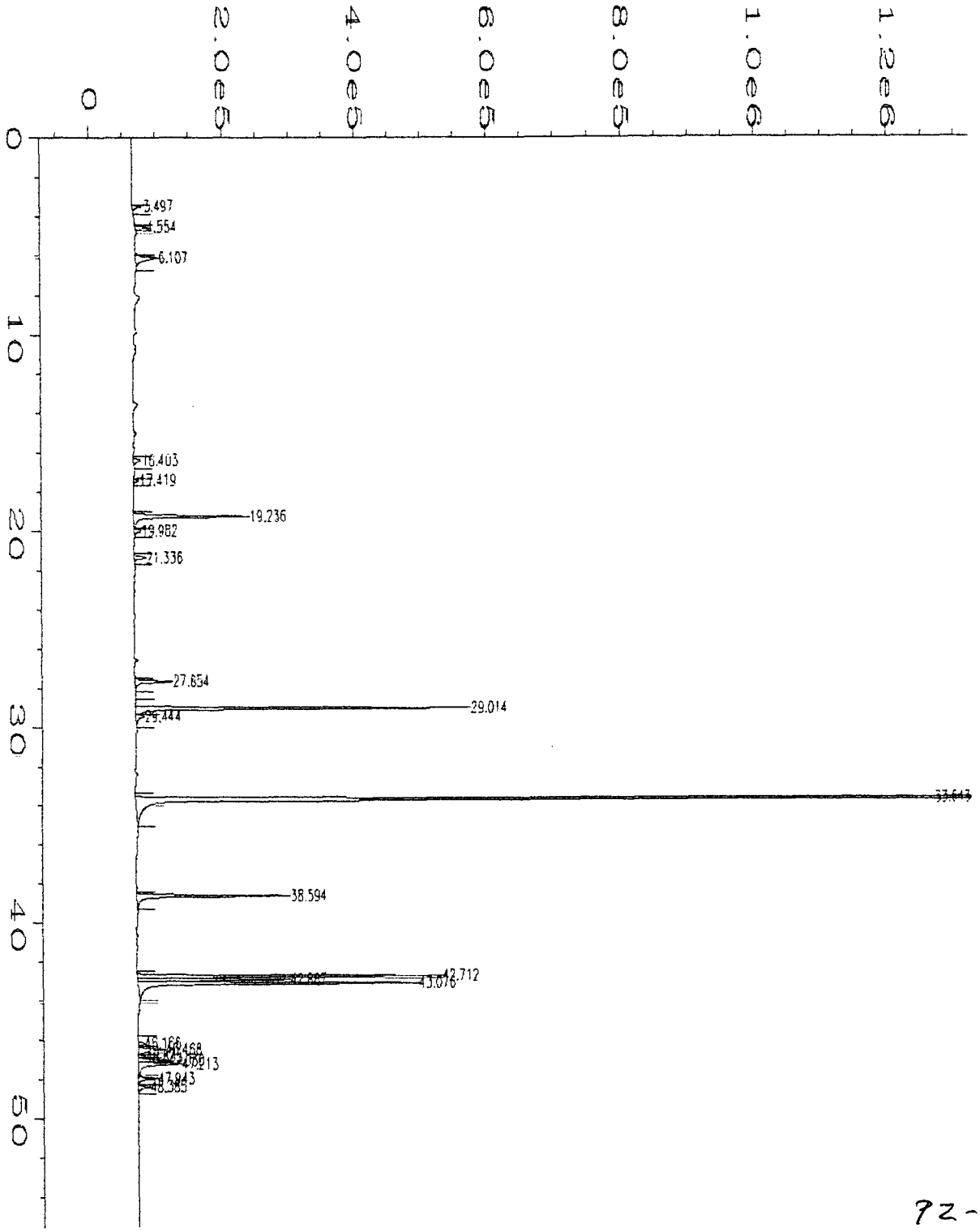
P2-3

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\051F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 51
Sample Name	: 13861 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 09 Dec 93 08:11 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:49 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



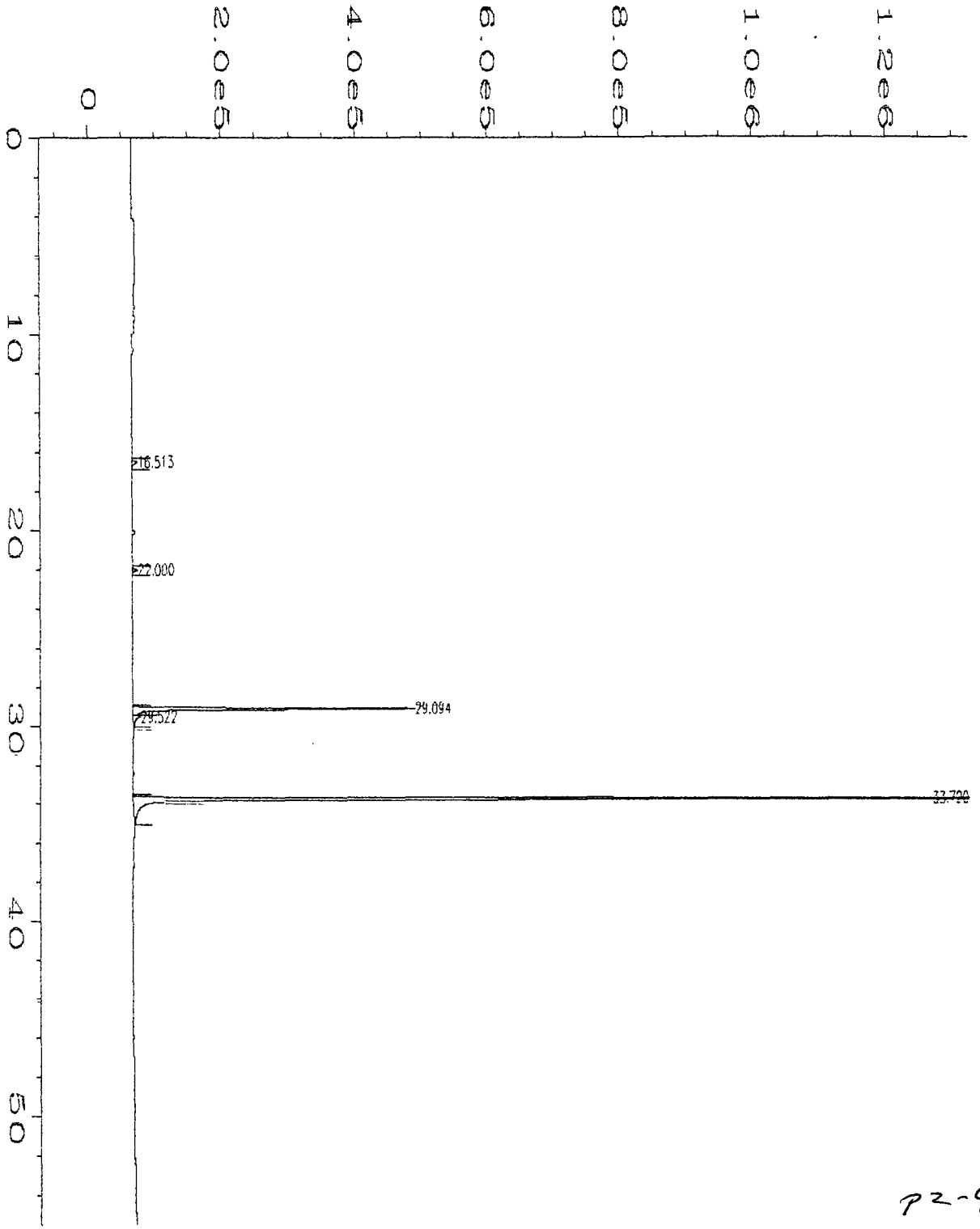
P2-3

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\051R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 51
Sample Name	: 13861 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 09 Dec 93 08:11 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:54 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



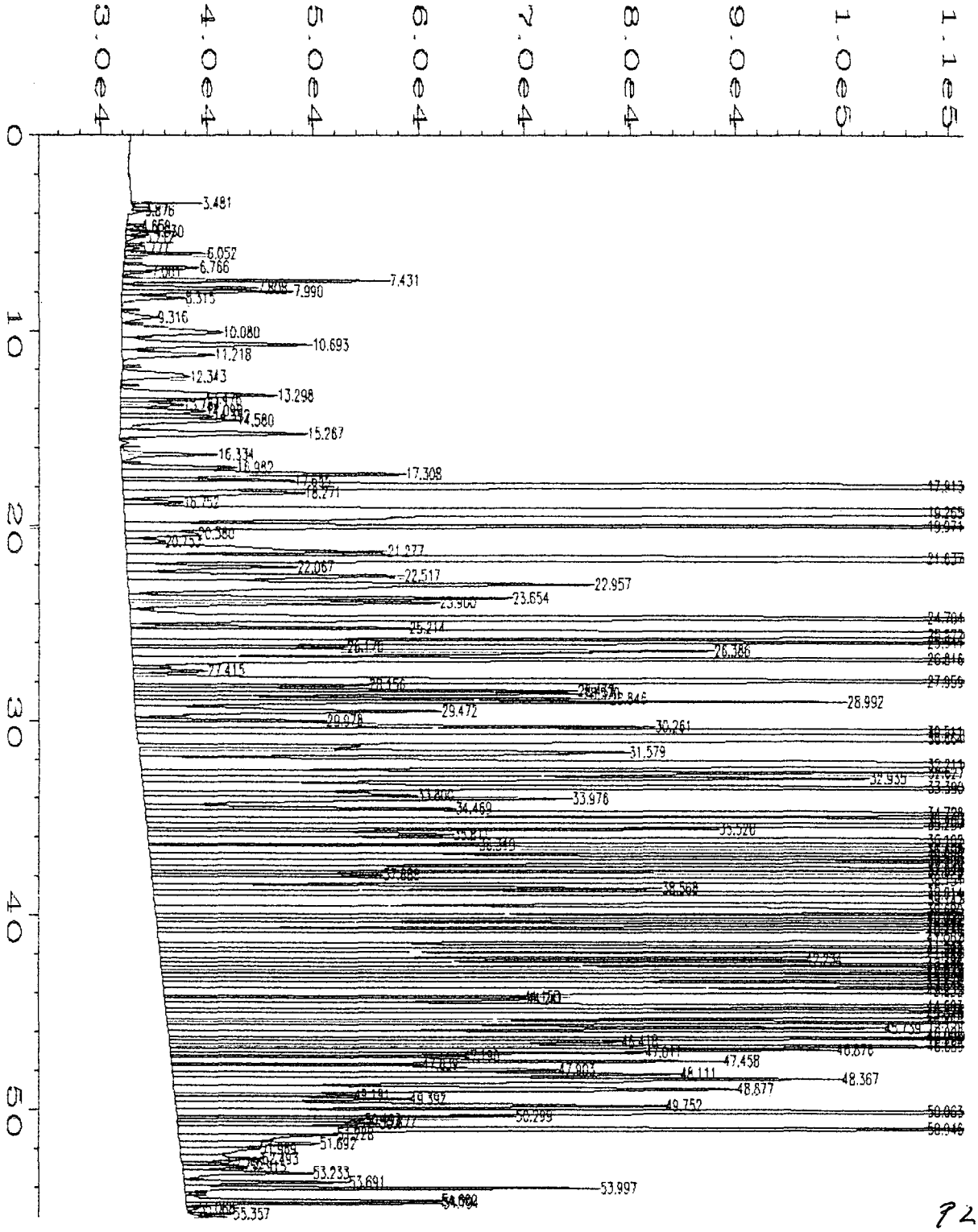
PZ-4

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\052F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 52
Sample Name	: 13862 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 09 Dec 93 09:16 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:50 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



P2-4

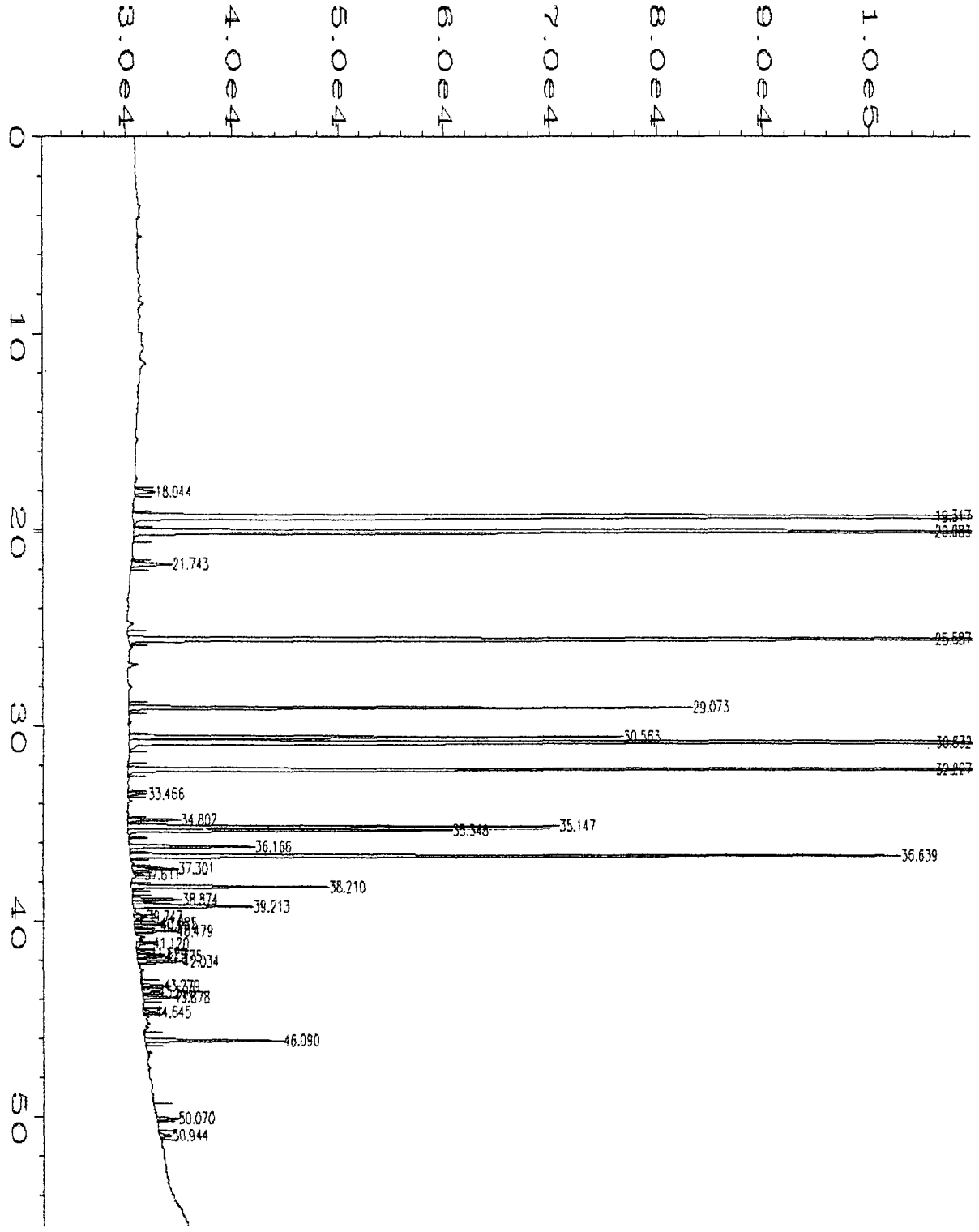
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\075F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 75
Sample Name	: 13862 DF100	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 09:25 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:50 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



92-4

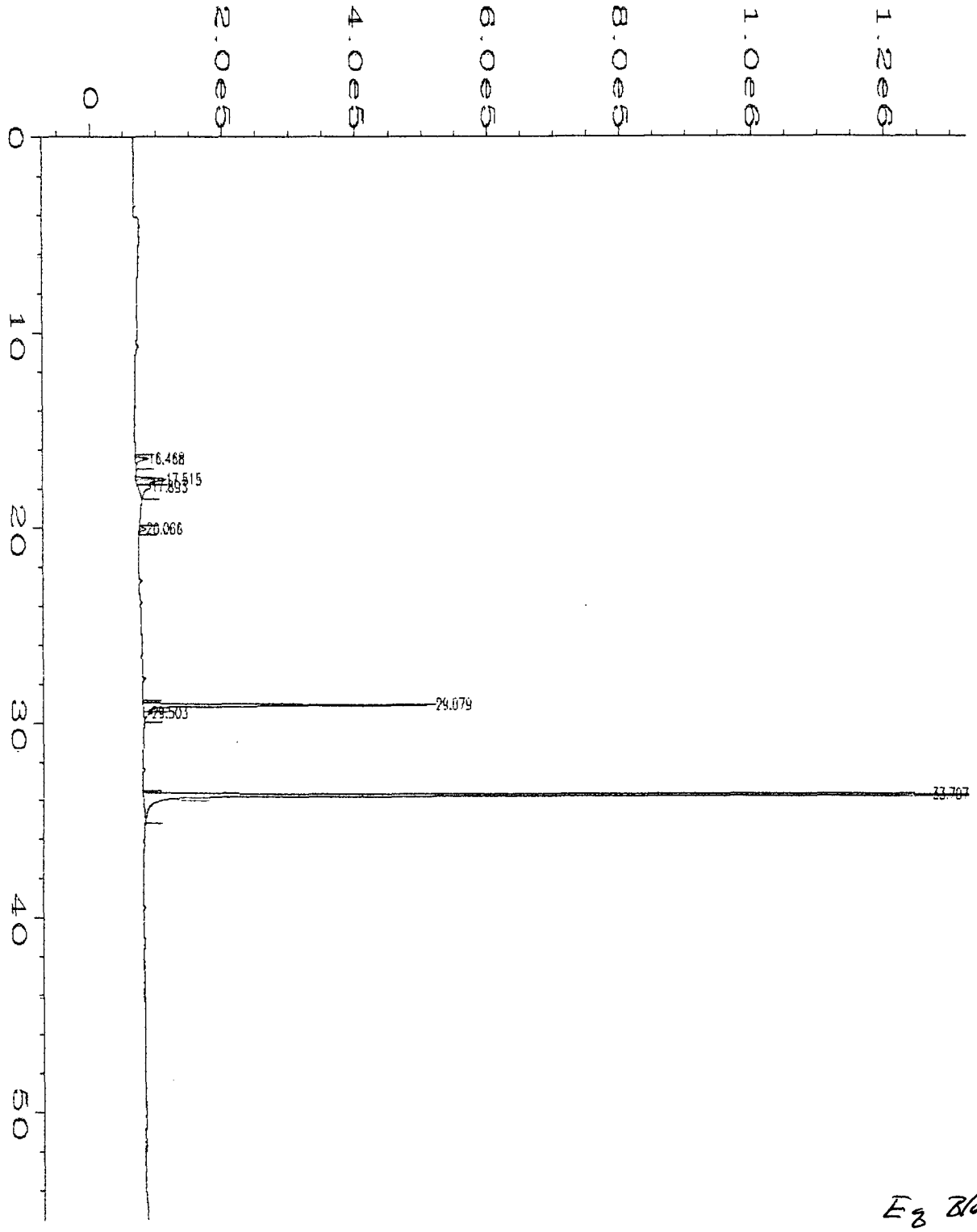
Data File Name : C:\HPCHEM\1\DATA\03DECVOL\052R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13862 DF1
Run Time Bar Code:
Acquired on : 09 Dec 93 09:16 AM
Report Created on: 13 Dec 93 02:54 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 52
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10



P2-4

Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\075R0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 75
Sample Name	: 13862 DF100	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 09:25 PM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 03:00 PM	Analysis Method	: 502VOL2.MTH
Last Recalib on	: 08 DEC 93 01:56 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	: 10



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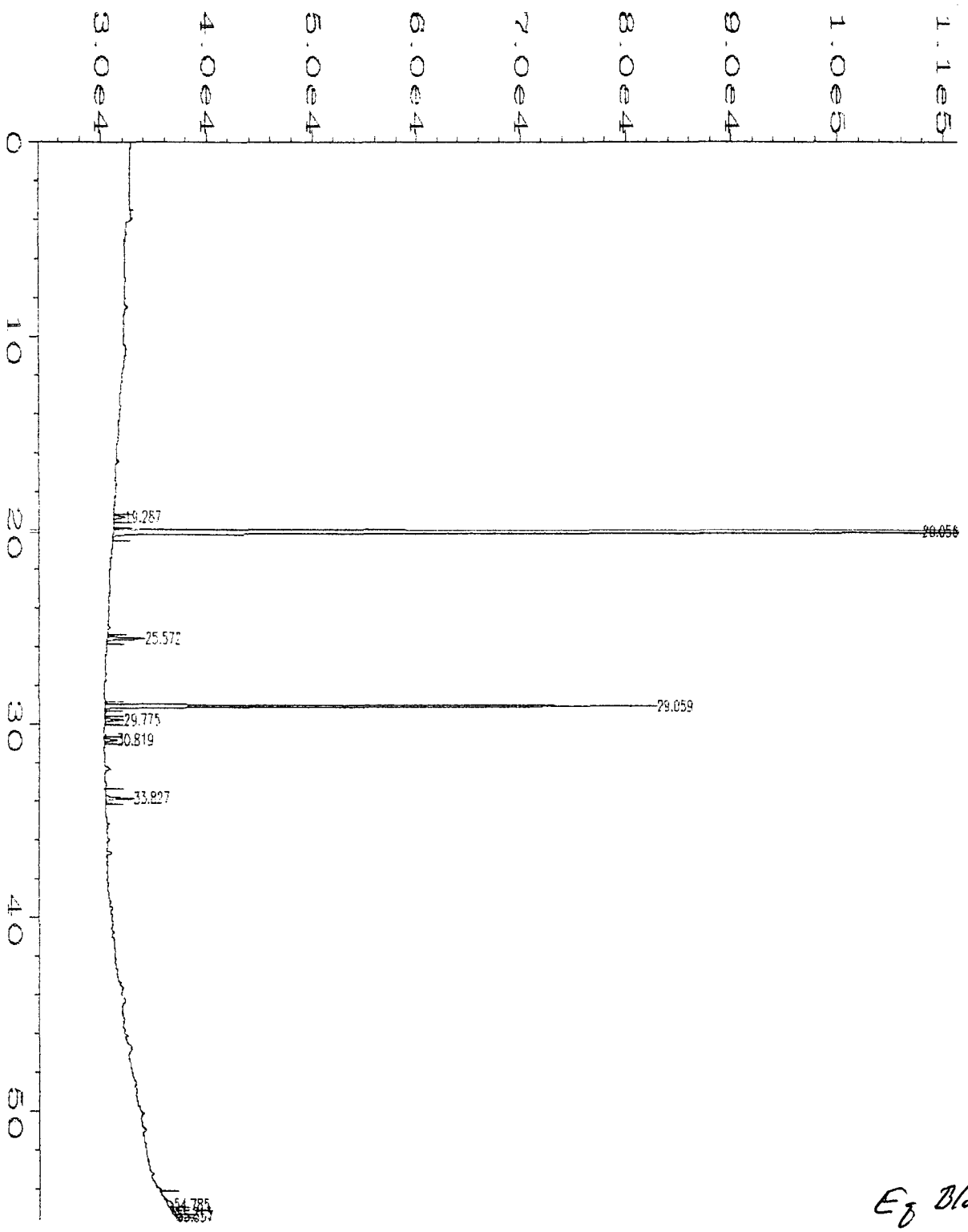
Data File Name	: C:\HPCHEM\1\DATA\03DECVOL\060F0101.D		
Operator	: PWK	Page Number	: 1
Instrument	: GC#1	Vial Number	: 60
Sample Name	: 13863 DF1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Dec 93 01:18 AM	Instrument Method	: 502VOL1.MTH
Report Created on	: 13 Dec 93 02:51 PM	Analysis Method	: 502VOL1.MTH
Last Recalib on	: 08 DEC 93 01:40 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



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Data File Name : C:\HPCHEM\1\DATA\03DECVOL\060R0101.D
Operator : PWK
Instrument : GC#1
Sample Name : 13863 DF1
Run Time Bar Code:
Acquired on : 10 Dec 93 01:18 AM
Report Created on: 13 Dec 93 02:53 PM
Last Recalib on : 08 DEC 93 01:56 PM
Multiplier : 1

Page Number : 1
Vial Number : 60
Injection Number : 1
Sequence Line : 1
Instrument Method: 502VOL1.MTH
Analysis Method : 502VOL2.MTH
Sample Amount : 0
ISTD Amount : 10