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SAN GABRIEL VALLEY
15049

RESULTS OF THE THIRD AND FORTH PHASE OF A SOIL GAS SURVEY CONDUCTED AT THE CROWN CITY PLATING COMPANY 4350 TEMPLE CITY BLVD. EL MONTE, CALIFORNIA

PREPARED FOR

Mr. Lawrence P. Donovan III
CROWN CITY PLATING COMPANY
4350 Temple City Blvd.
El Monte, California 91731

SUBMITTED TO :

California Regional Water Quality
Control Board - Los Angeles Region
101 Centre Plaza Drive
Monterey Park, California 91754-2156
Attn: Arthur G. Heath

PREPARED BY :

INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Ave.
Colton, Ca. 92324

May 15, 1994

TABLE OF CONTENTS

	Page
INTRODUCTION ----------	1
FIELD PROCEDURES ----------	1
RESULTS ----------	3
FIGURE 1 - INDEX MAP	1

APPENDIX A - PLOT PLANS
APPENDIX B - FID DETECTOR CHROMATOGRAMS
APPENDIX C - PID DETECTOR CHROMATOGRAMS
APPENDIX D - PRE-SURVEY CALIBRATIONS AND DAILY CHECKS AND QUALITY CONTROL

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INTRODUCTION

We are pleased to present the results of the third and forth phases of a Soil Gas Survey which was conducted for Crown City Plating located at 4350 Temple City Boulevard, El Monte, California (see Figure #1 INDEX MAP). The study commenced upon approval of Mr. Solomon of the California Regional Water Quality Control Board and was conducted in real time on the site.

The survey was carried out by Inland Empire Environmental Services on May 5 and 6, 1994. Vapor samples were obtained from twenty-six (26) points on the property (see APPENDIX A for - Plot Plans).

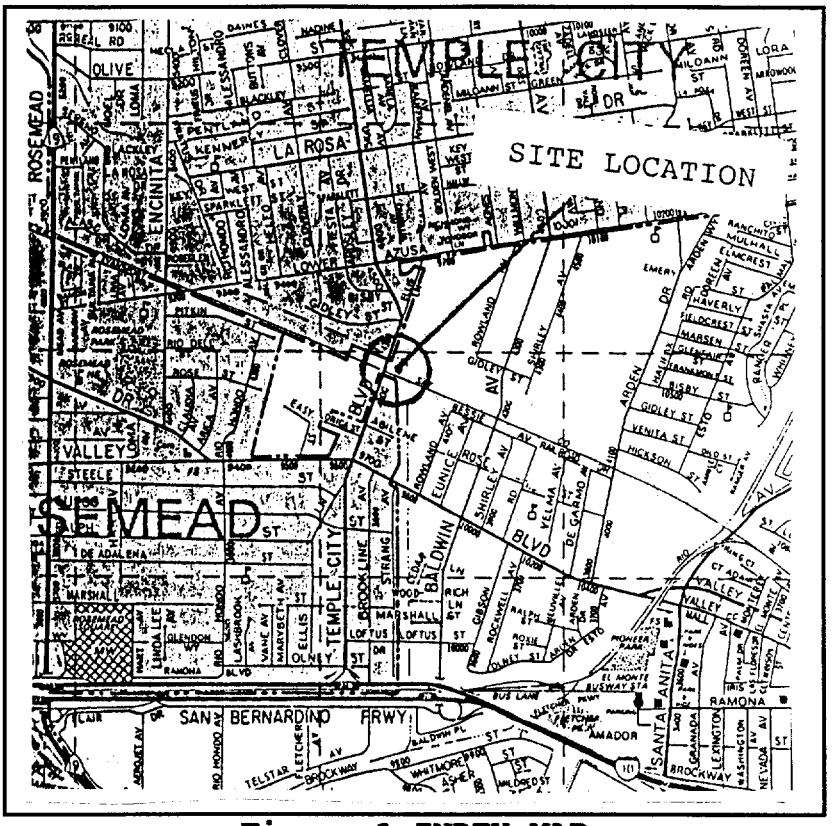

Figure 1 INDEX MAP

FIELD PROCEDURES

This soil gas survey collected and analyzed organic vapors of the subsurface in real time. This survey was conducted using an SRI portable gas chromatograph which detected and characterized these vapors to a field sensitivity as low as 1 part per billion (ppb). The SRI gas chromatograph was equipped with three types of detectors. The first was a PHOTO IONIZATION DETECTOR (PID). The second was a FLAME IONIZATION DETECTOR (FID). The third was an ELECTRO-LYTIC CONDUCTIVITY DETECTOR (ELCD) which is more commonly known as a **Hall Detector**. The PID is sensitive to products such as benzene while the ELCD is extremely sensitive to chlorinated hydrocarbons. Because the primary compounds of interest in this survey were chlorinated hydrocarbons, the results from the ELCD are of greatest concern to us.

The SRI gas chromatograph was calibrated using a three point curve of 3μg/L, 10μg/L, and 50μg/L mixtures of compounds used for EPA method 8010/8020. Daily checks consisted of an injection of 10μg/L of the same compounds used for the construction of the calibration curve. Quality checks were made at the beginning and end of each survey day using an 8010/8020 mixture supplied by a different laboratory. The vapor samples were prepared in VOC bottles with new septums which were placed in an aluminum block that is surrounded by salt. This assemblage was heated inside a closed air circulated oven at 100°C for one hour. A Hamilton gas tight syringe was then used to

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QUALITY CONTROL BOARD
LOS ANGELES REGION

inject 10cc of this vapor onto the Tenax trap which had been chilled to 0°C.

The capillary columns used during the survey were a 75 meter megabore supplied by J&W Scientific. The primary column is a DB-VRX with a .45 mm inside diameter and is used with the PID/FID detectors. The second column is a DB-624 with a .53 mm inside diameter and is used with the PID/ELCD detectors. The carrier gas was laboratory grade hydrogen. Filtered air was used to pressurize the n-Propanol which was used as the non-conductive background for the Hall detector. The temperature of the column is controlled by the Peak III software which, in this case, is designed to hold the temperature at 40°C for five (5) minutes and then to ramp to 160° at 5°C per minute.

The system used to extract vapor samples from the subsurface consists of a vapor probe which is connected to a pump by a teflon tube. Vapors are drawn from the subsurface through the teflon tubing to the pump. As the vapors are drawn to the pump, they pass through a glass sampling bulb which contains a sampling port with a septum. The pump is allowed to run for 10 seconds and a sample is obtained from the vapor stream using a Hamilton gas tight syringe. Since the pump is downstream from the sampling port, no cross contamination of samples from the pump is possible.

The vacuum pump used to extract the soil vapor samples is an Air Cadet Vacuum/Pressure Station sold by Cole-Palmer Instrument Company. This instrument pumps at a rate of 1050 cubic inches per minute at 15" Hg and 110 volts. The standard purge time for the survey was 10 seconds which calculates to a volume of 2.87 Liters. The total volume of the system is 700 ml or .7 Liters, which includes the glass gas sampling bulb, hydro-purge cylinder, Teflon tubing and sample probe. Therefore, the system is purged approximately four (4) times before a sample of vapors is taken.

The soil probes used were constructed out of 1/2 inch iron pipe. The pipe is driven five feet below the ground surface with an impact hammer. Once the probe has been installed, it is jacked back out approximately 1 inch. This allows the removable tip to be punched out with a metal rod. The probe is then connected with Teflon tubing to the vacuum pump. The seal between the outside probe pipe and the annulus of the bore hole insures that ambient air from the surface is <u>not</u> drawn into the sample vacuum pump.

Where required, bore holes were drilled through the surfacing material with a three-quarter inch diameter impact drill. A manually operated impact hammer was then used to create the seven-sixteenth inch (7/16") diameter holes to a depth of four feet below ground surface. The probe system was then driven into undisturbed soil and a vapor sample was collected using a sampling pump as described above.

The vapor sample at 10 cc was then injected into the chromatographic column. The individual components present in the soil gas were separated as they were drawn through the column by the carrier gas. As each component (or group of components) exited the column and passed through the detectors, an electronic signal proportional to the amount of material was generated which produced a plot of the detector response versus time. These chromatograms of the soil gas samples are included as Appendix A and B at the end of this report.

RESULTS

Crown City Plating requested that additional soil gas points be made at ccsg 60, 61, 62, and 59.

Point 60 was driven to a depth of 10 feet adjacent to the paint storage area and points 61 and 62 were located east of the paint storage and sampled at depths of 5 feet. Results were non-detectible for these three samples.

Soil gas point ccsg 59 was located at the southeastern corner of the interior fence, east of the guard's station, in order to better define the extent of a possible Trichloroethene plume. The results were non-detectible for this sample.

Soil gas survey points ccsg 50, 51,52, 53, 54, 55, 63, and 64 were all sampled at depths of fifteen feet in and around the bunker fuel oil storage tanks. The results were non-detectible for the compounds under investigation.

All of the survey points were non-detectible with respect to chlorinated solvents and/or petroleum hydrocarbons. All peaks seen on the chromatograms are either surrogate compounds and/or compounds not specified under the EPA method 502.2 standards.

Lawrence P. Pearce

Lawrence P. Pearce
Project Manager
IEES
CPG #3873
REA #2580

INLAND EMPIRE ENVIRONMENTAL SERVICES
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APPENDIX A
PLOT PLANS

INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Avenue
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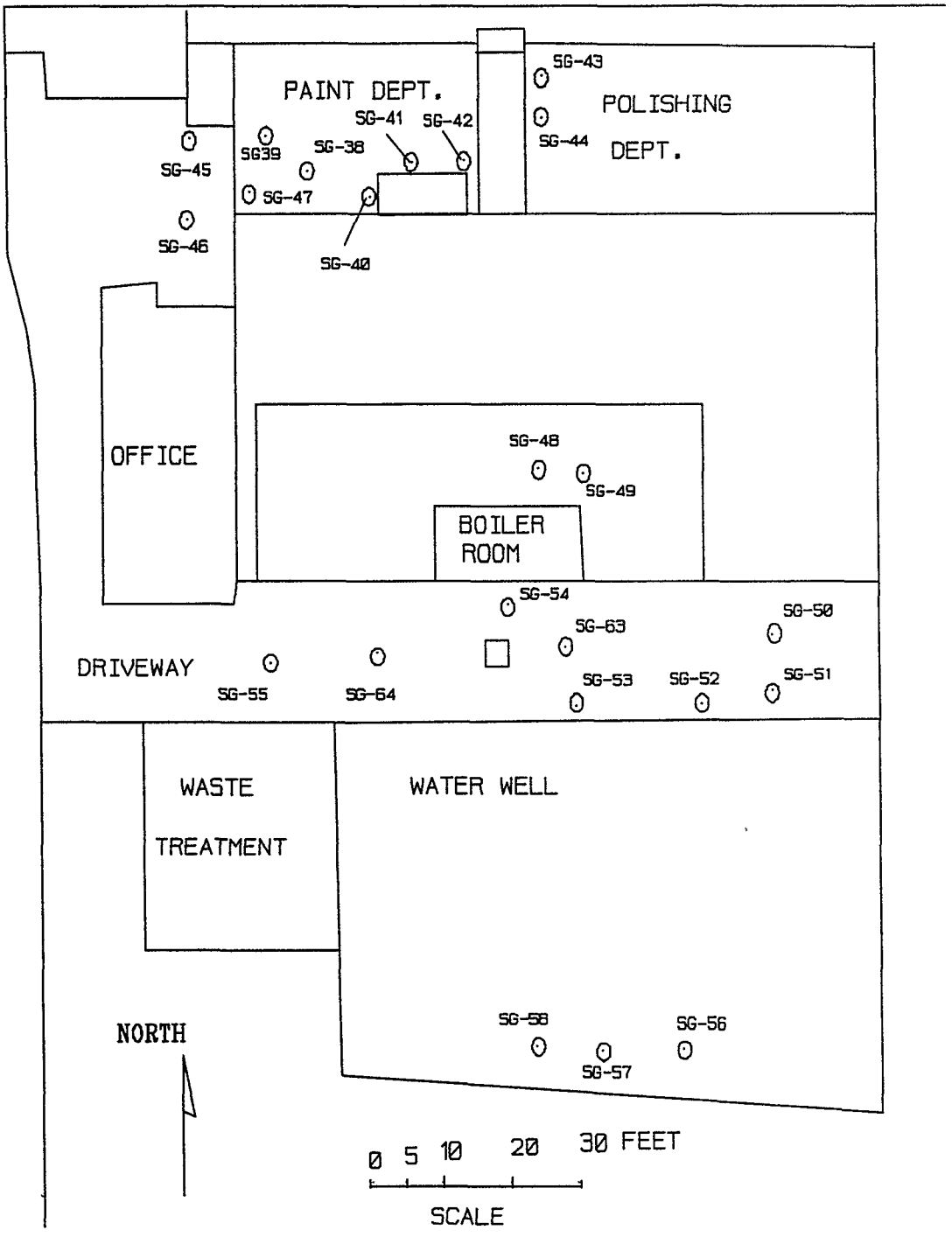
PLOT PLAN

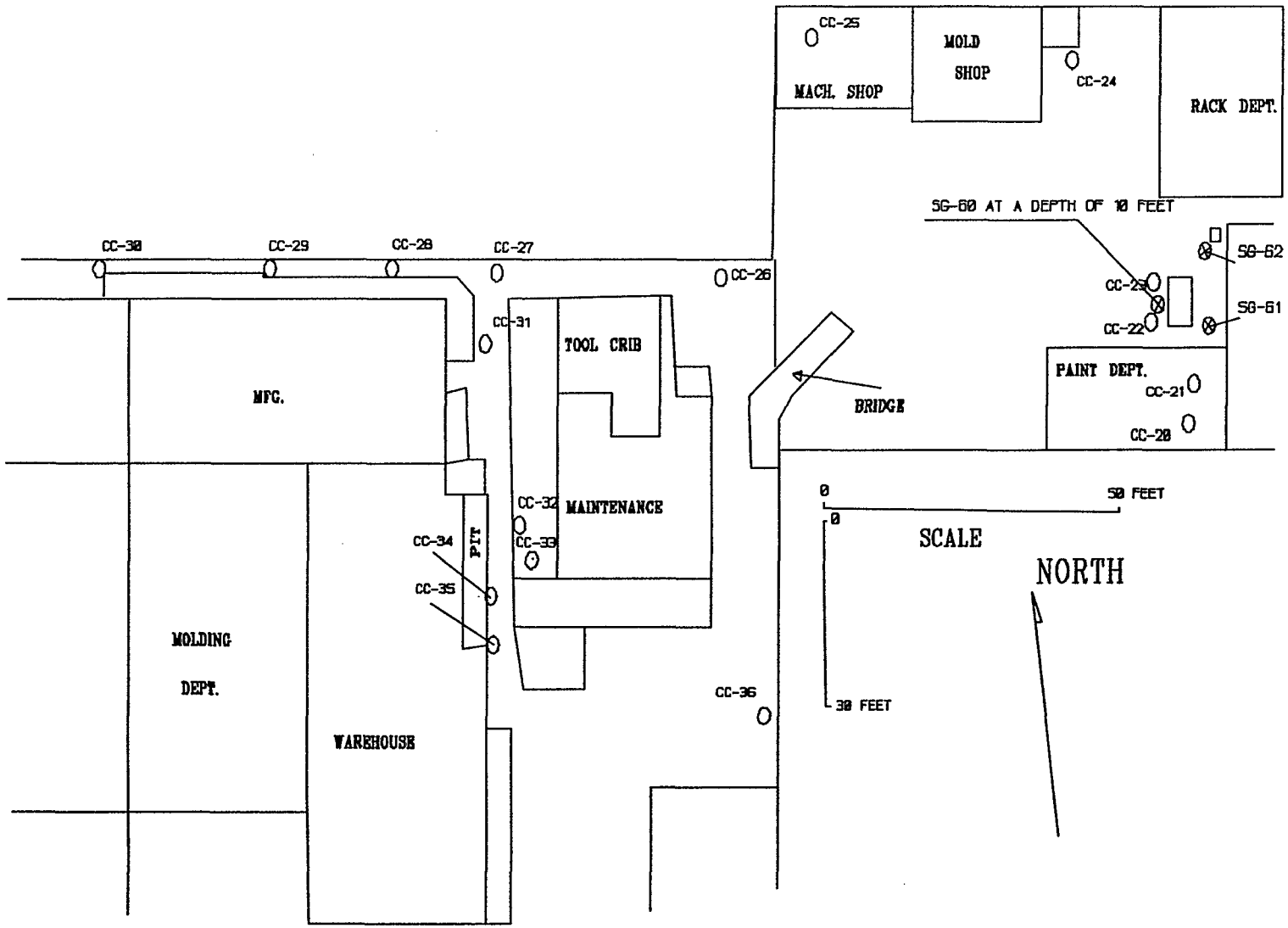
FIGURE 1



CROWN CITY PLATING

FIGURE 2

PLOT PLAN OF NORTHEASTERN SECTION OF PROPERTY



APPENDIX B
FID DETECTOR CHROMATOGRAMS

INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Avenue
Colton, California 92324
(909) 872-0501 FAX (909) 824-1442

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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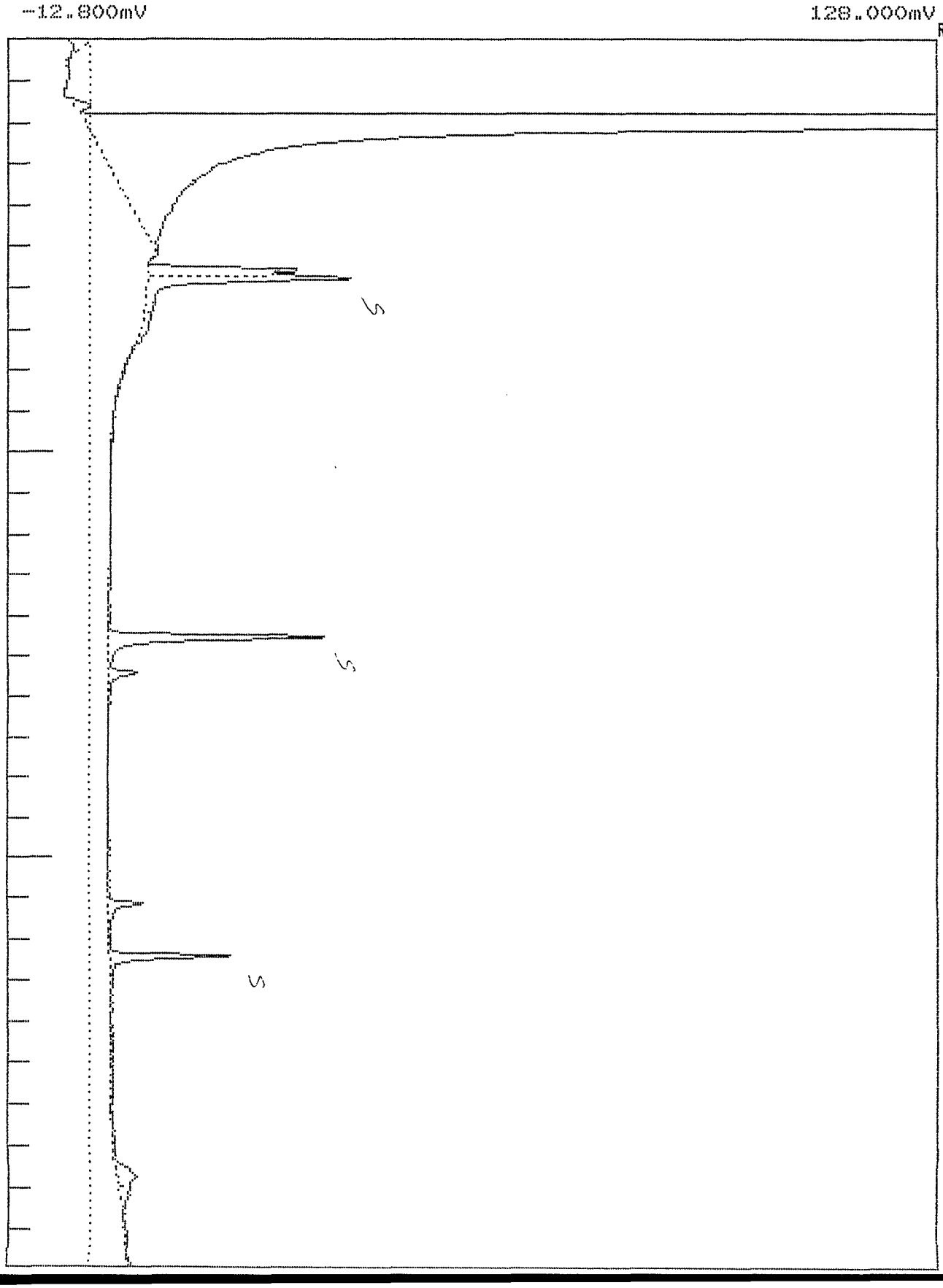
Operator : PEARCE



Retention	Area
1.850	46091.89 M
5.766	414.32 M
14.533	347.88 M
15.400	55.79 M
21.150	62.41
22.400	169.80
27.716	62.18

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
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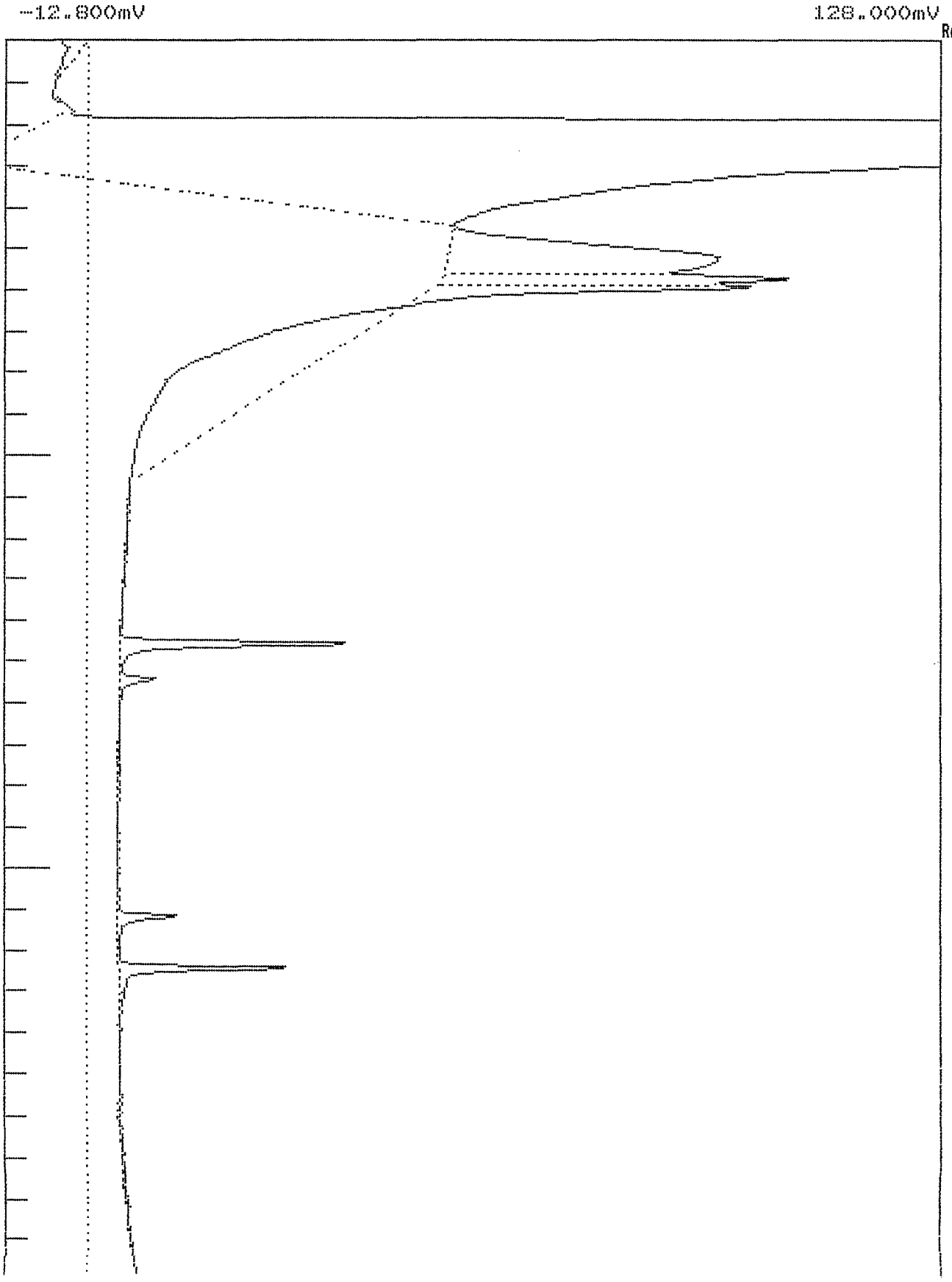
Operator : PEARCE



Retention	Area
1.916	72156.21
2.950	5310.34 M
5.166	1655.44 M
5.683	662.56 M
14.550	367.75 M
15.433	62.88 M
21.166	105.00 M
22.416	244.25 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
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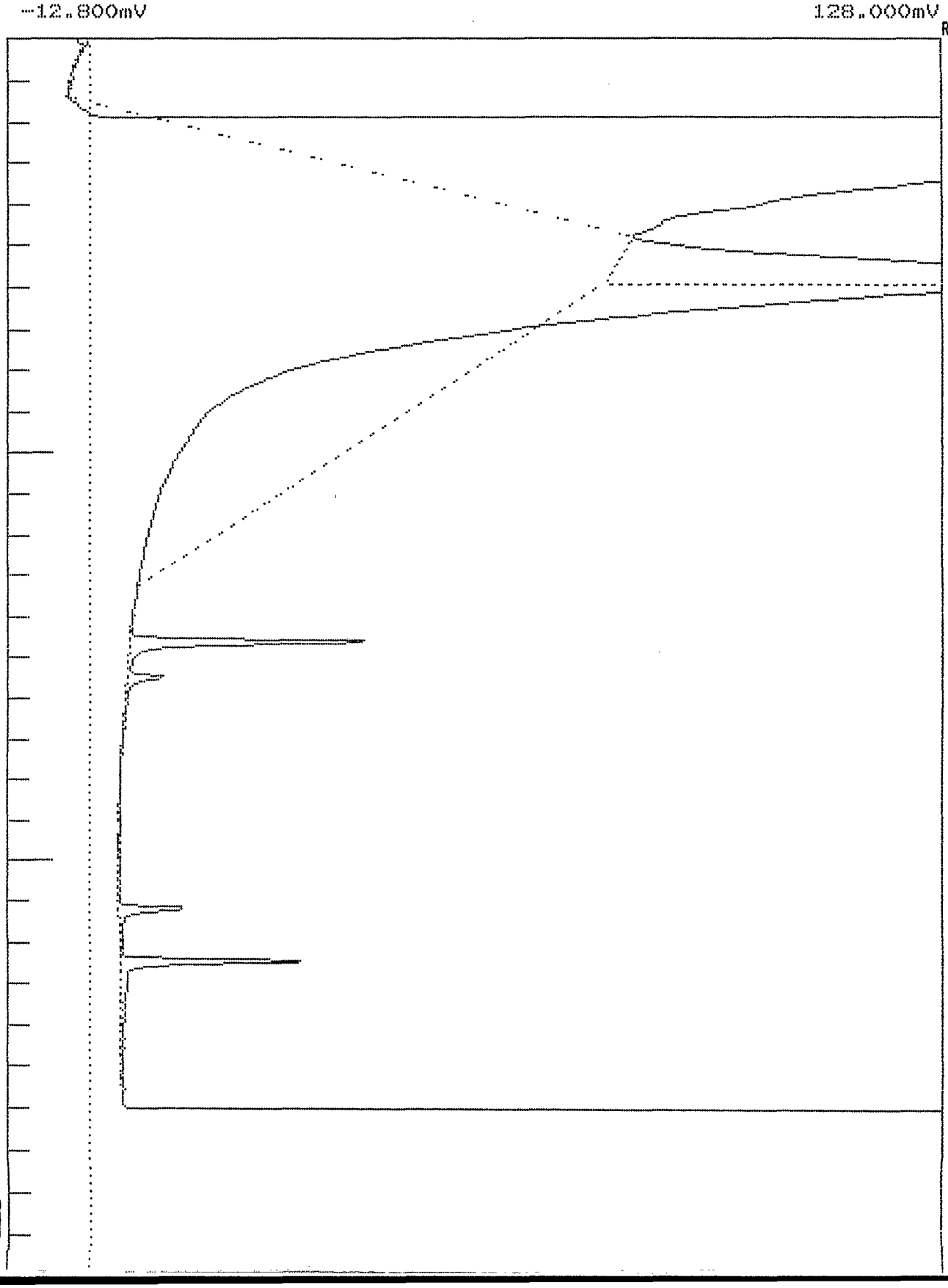
Operator : PEARCE



Retention	Area
1.950	75179.18 M
5.750	2422.73 M
14.600	375.77 M
15.483	71.90 M
21.183	107.22 M
22.433	252.42 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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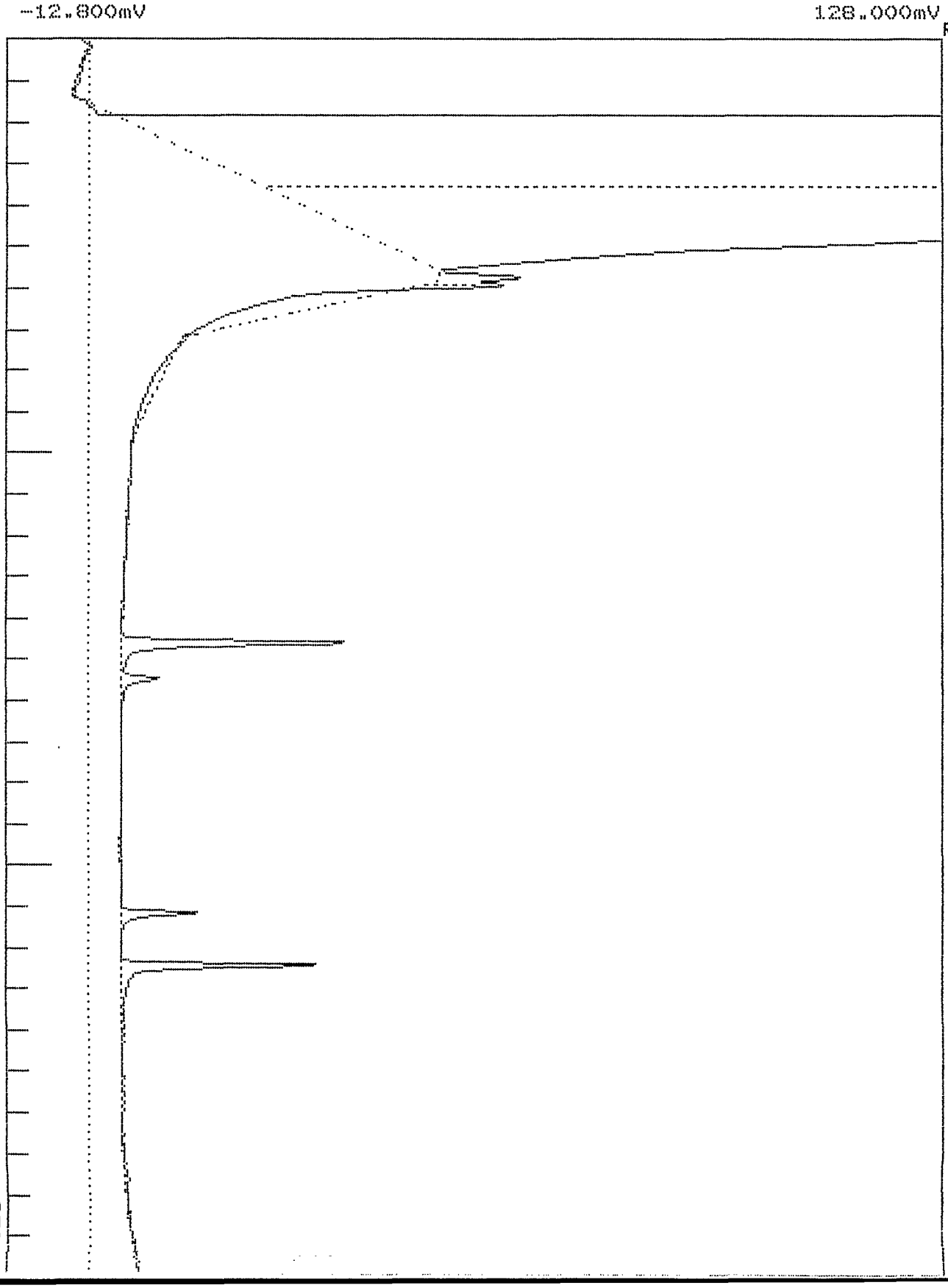

Retention	Area
1.916	88044.54 M
4.166	12856.09 M
5.716	116.50 M
14.600	364.25 M
15.466	64.91 M
21.150	116.11 M
22.416	292.60 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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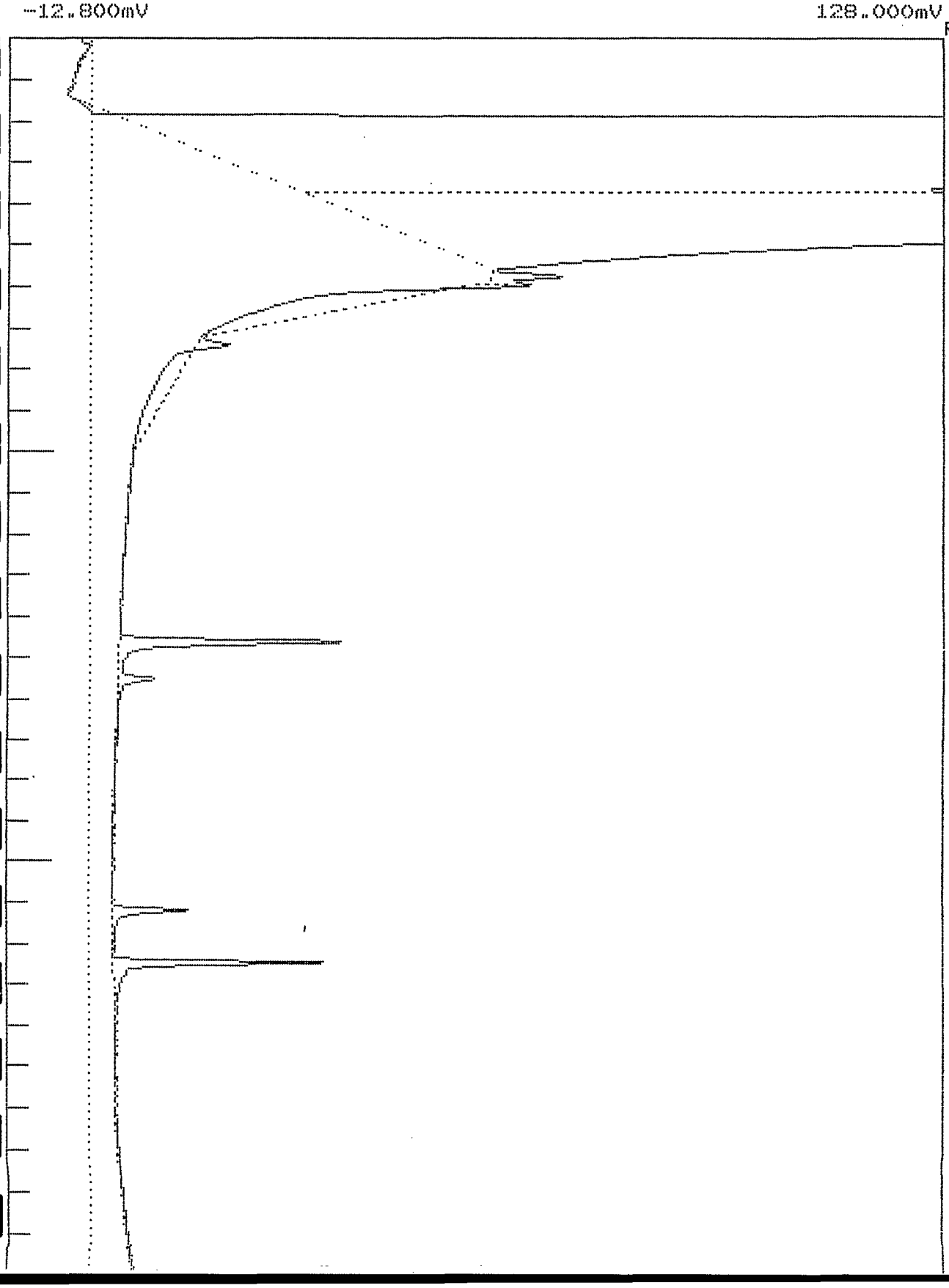
Operator : PEARCE



Retention	Area
1.933	94818.38 M
4.316	11186.76 M
5.783	95.79 M
14.616	356.37 M
15.483	70.04 M
21.200	112.95 M
22.450	284.80 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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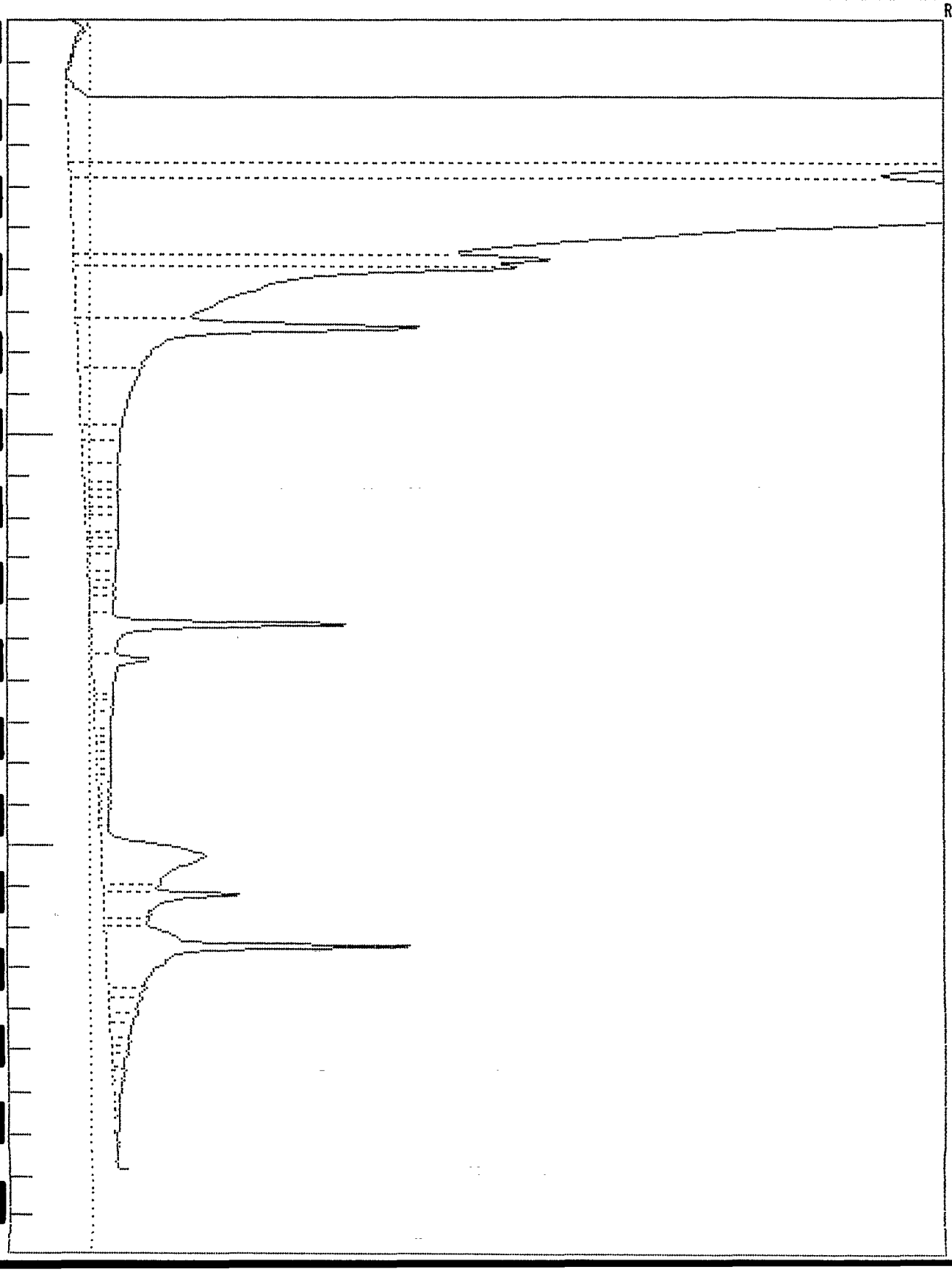
Operator : PEARCE

-12.800mV 128.000mV



Retention	Area
1.933	92379.90
3.450	2914.55
4.316	14891.98
5.716	1053.91
5.916	2446.98
7.366	1396.14
8.333	646.27
9.733	131.82
10.183	195.15
10.800	143.76
11.333	56.67
11.733	58.71
11.966	119.96
12.533	69.52
12.900	103.34
13.383	61.36
13.983	96.48
14.616	569.75
15.483	247.99
16.783	64.58
20.283	751.11
20.983	76.62
21.200	426.96
21.866	72.38
22.450	1047.59
23.500	74.89
23.733	100.54
24.083	58.91
24.416	73.83

Lab name : IEES
Client : CROWM CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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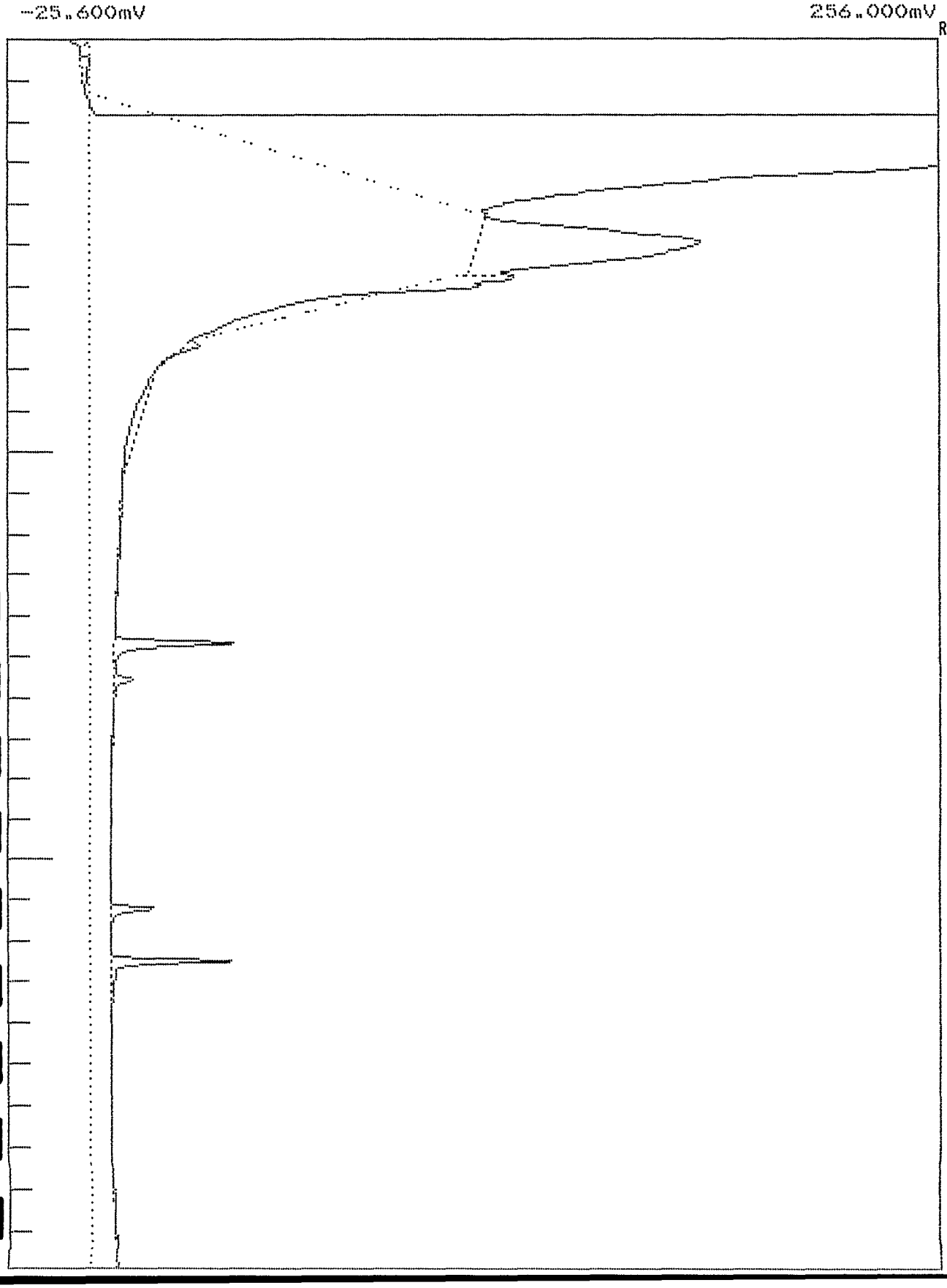

Retention	Area
0.450	85.69
1.950	104269.84 M
4.900	3212.56 M
14.666	380.54 M
15.533	72.86 M
21.216	141.42 M
22.483	352.59 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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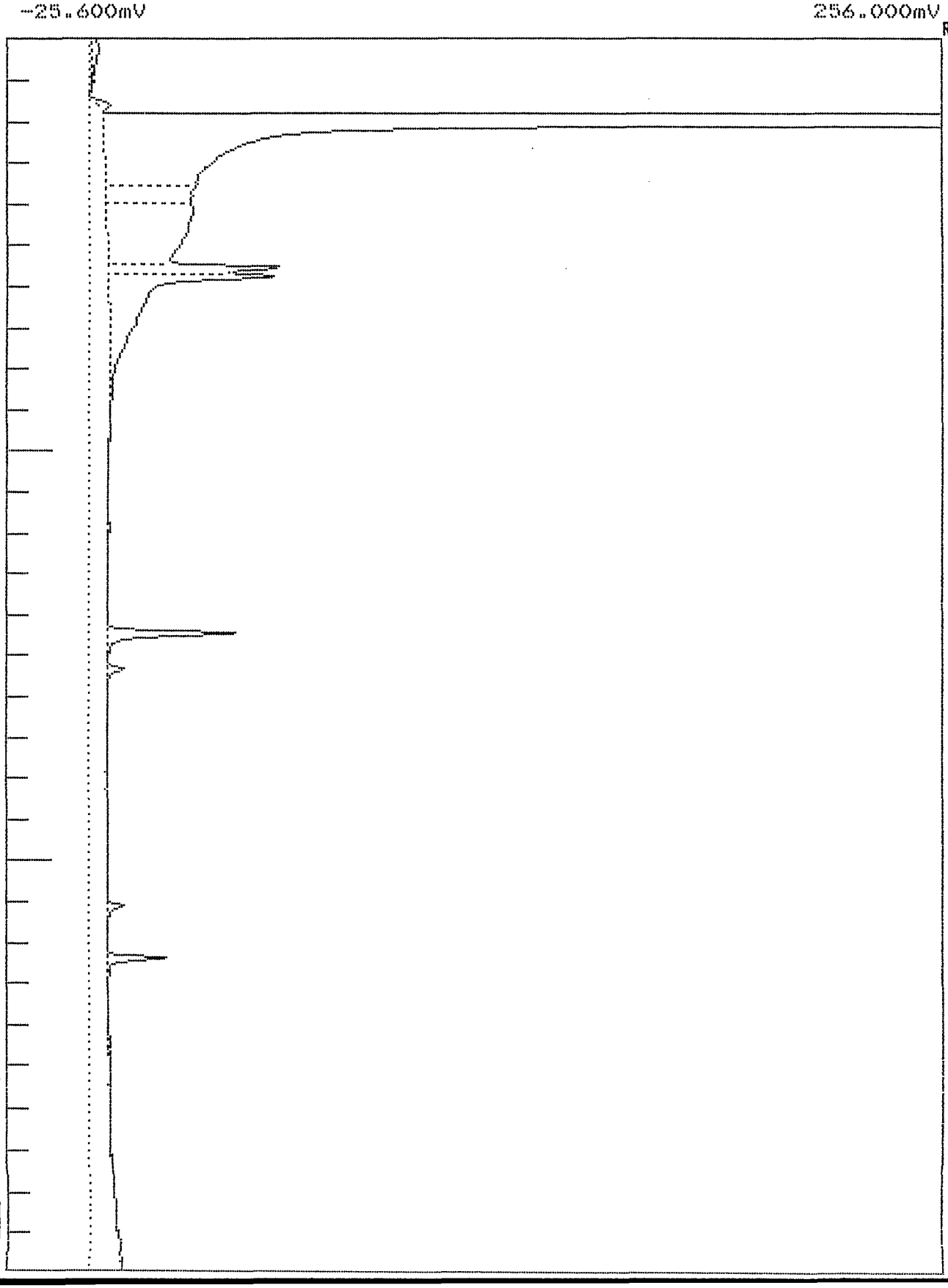
Operator : PEARCE



Retention	Area
0.183	82.18
1.866	42956.00
3.500	690.80
4.133	2064.73
5.733	1556.19
14.450	387.68
21.100	58.22
22.366	152.73

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
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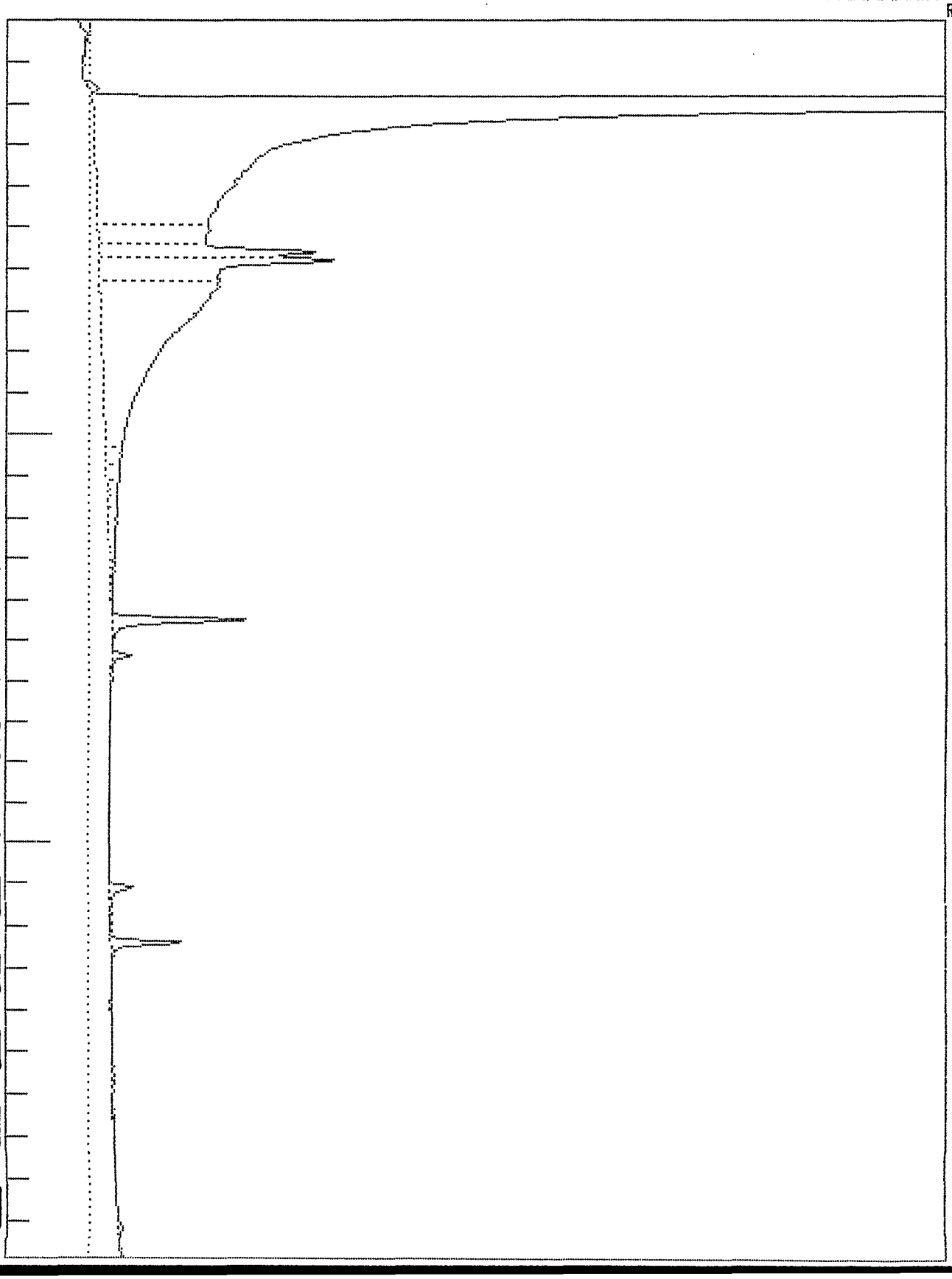

Retention	Area
1.883	55481.91
5.066	889.38
5.783	1554.47
6.266	4308.42
10.316	122.22
10.733	88.81
11.750	64.69
14.483	414.91
15.366	60.38
21.116	71.68
22.383	187.68

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
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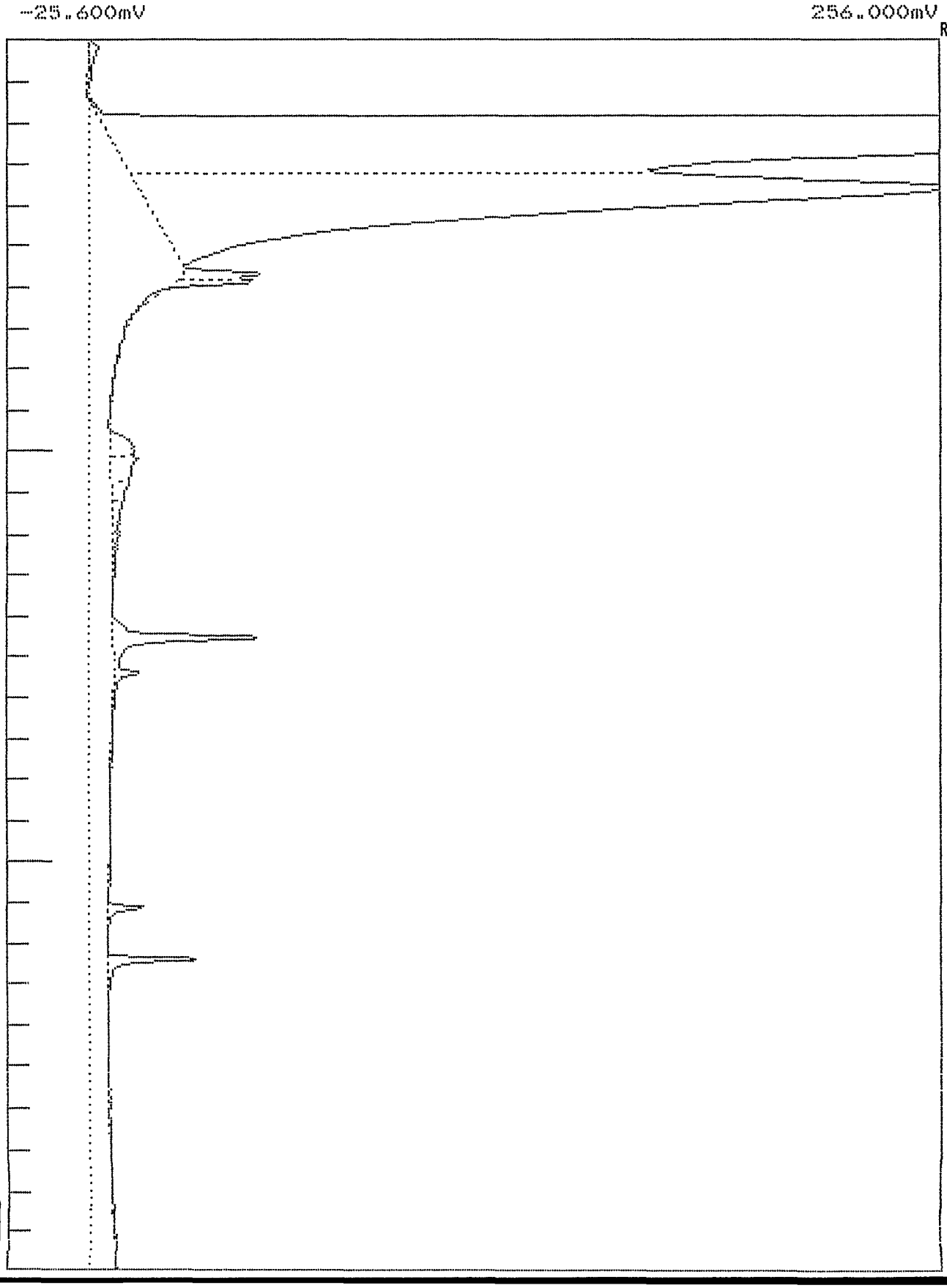

Retention	Area
0.216	99.09
1.900	86707.27 M
3.533	15396.56 M
5.850	190.90 M
10.183	228.62 M
10.733	137.70 M
11.383	68.85 M
14.516	614.67 M
15.400	101.67 M
21.133	105.19 M
22.383	277.69 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
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Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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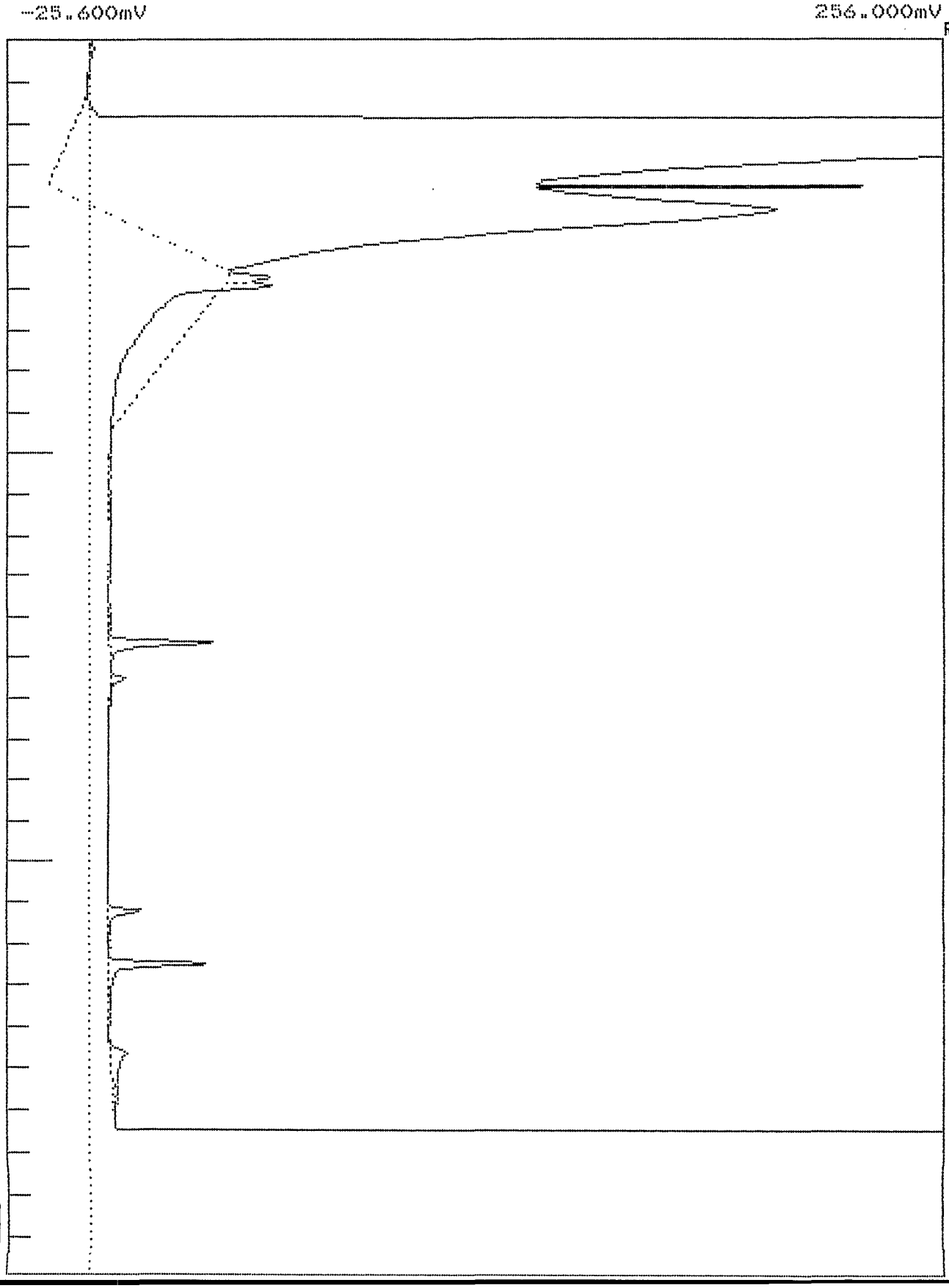

Retention	Area
1.916	90040.85
3.516	13935.03 M
5.716	110.48 M
14.633	322.82 M
15.500	50.87 M
21.216	109.85 M
22.483	297.75 M
24.650	151.10 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
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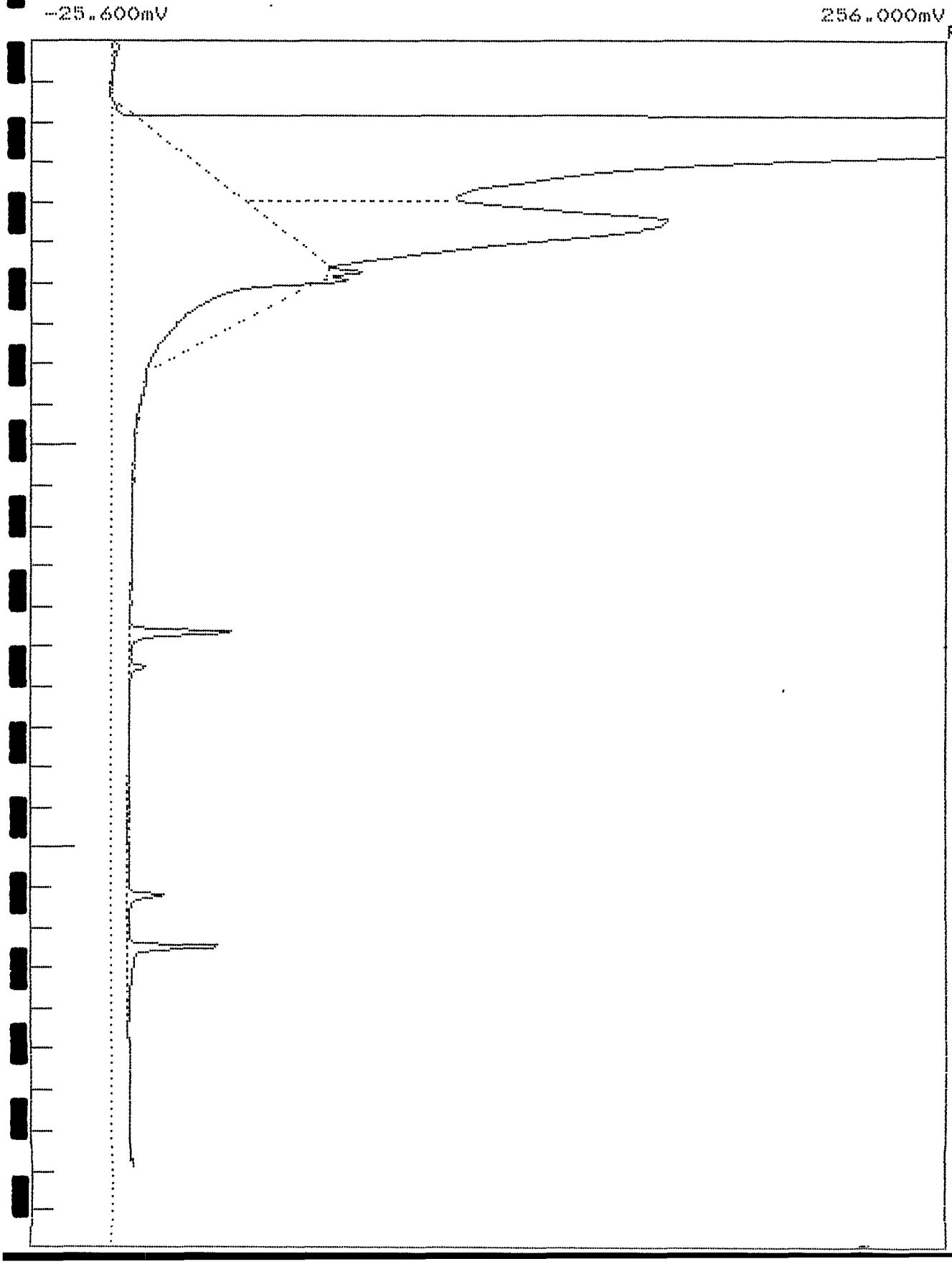

Retention	Area
1.916	92130.78 M
4.450	7577.81 M
5.716	78.83 M
14.650	329.60 M
15.516	58.21 M
21.200	118.04 M
22.483	335.84 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 50.00 Dilution= 3.00
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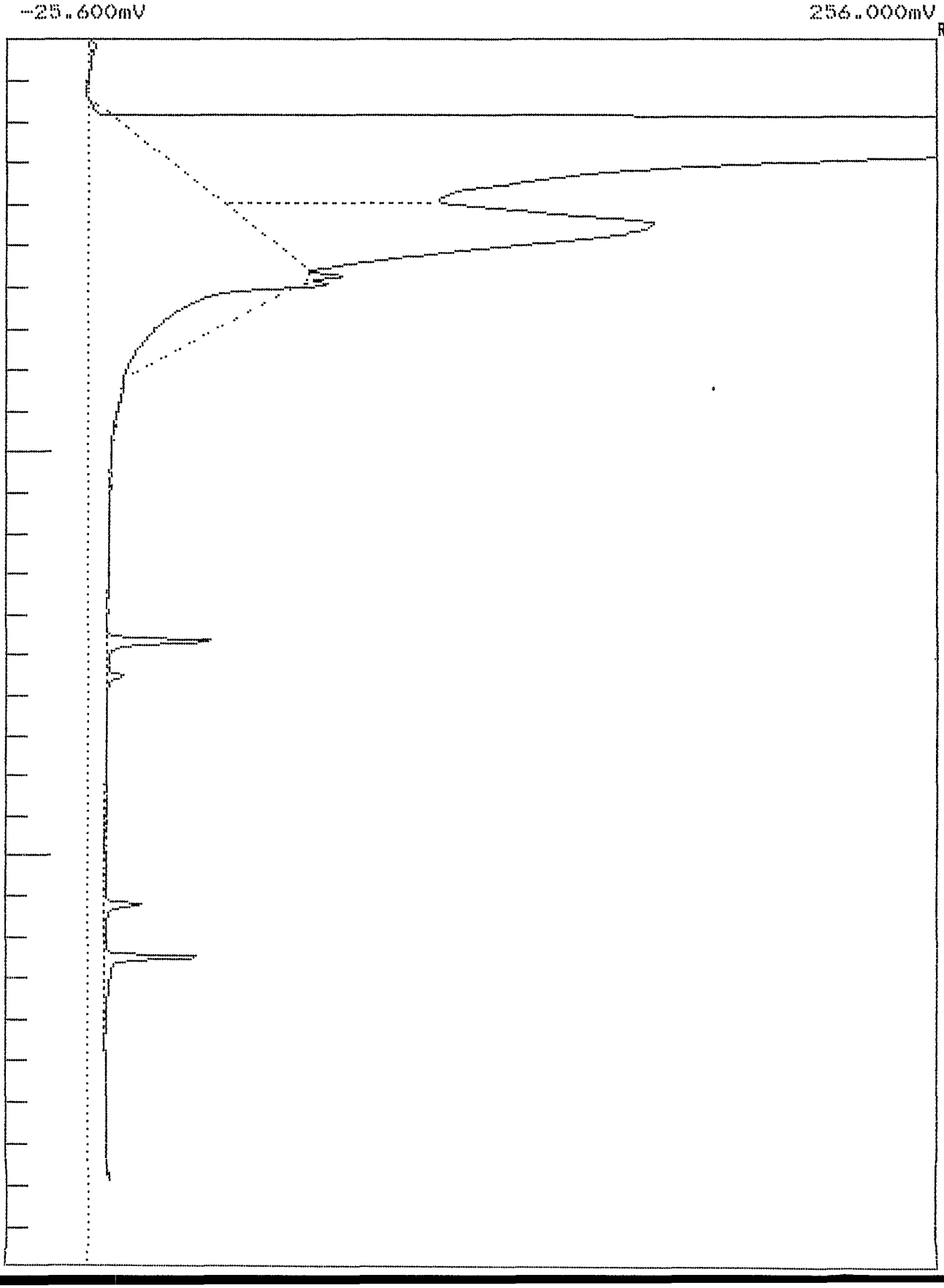

Retention	Area
1.916	92130.78 M
4.450	7577.81 M
5.716	78.83 M
14.650	329.60 M
15.516	58.21 M
21.200	118.04 M
22.483	335.84 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
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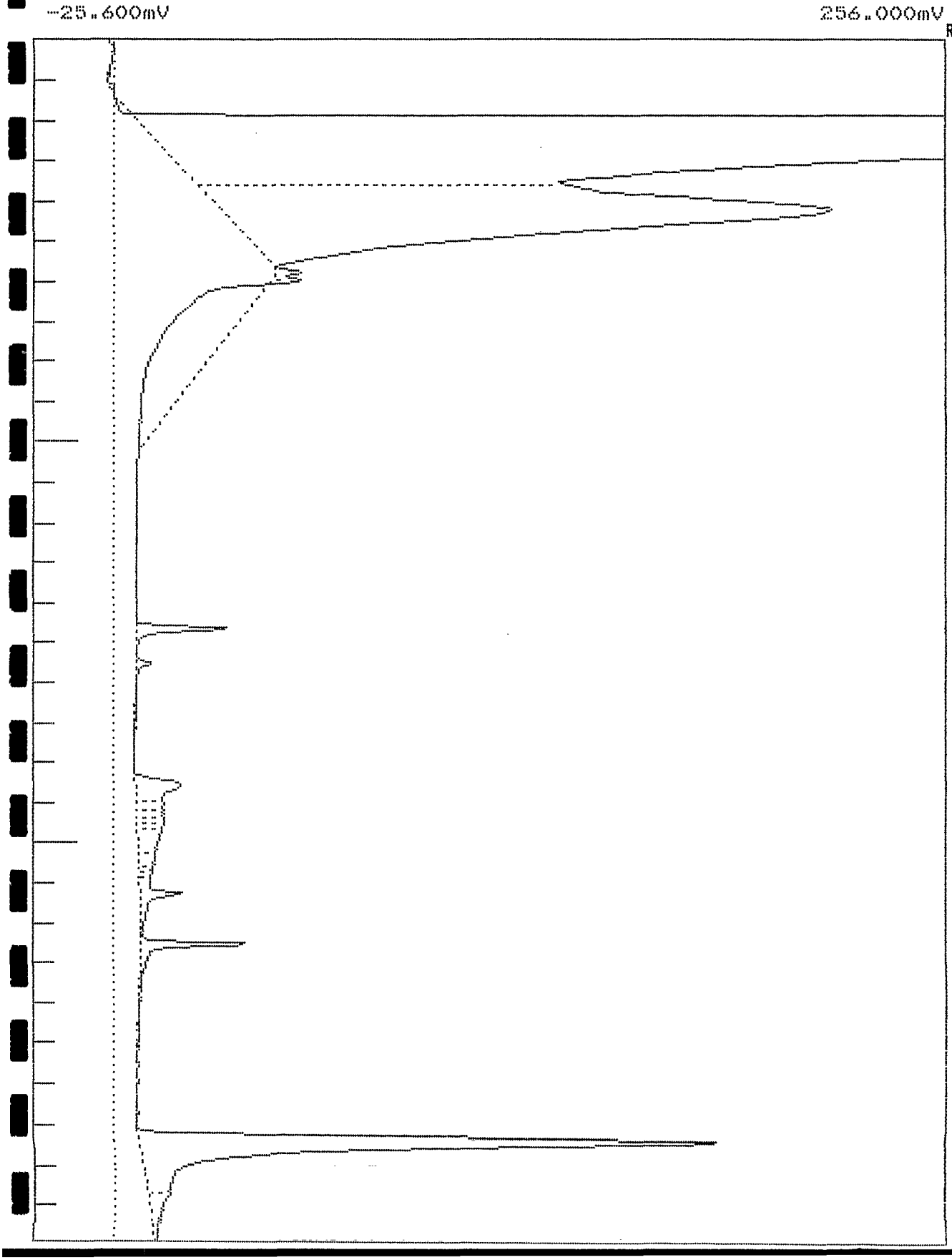
Operator : PEARCE



Retention	Area
1.966	95426.87 M
4.216	12995.48 M
5.766	70.70 M
14.633	298.26 M
15.533	60.84 M
18.616	360.56 M
19.050	106.78 M
19.416	57.75 M
19.666	244.97 M
20.266	90.71 M
20.983	54.06 M
21.266	182.14 M
22.516	358.17 M
27.383	3842.69 M
28.766	164.56 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
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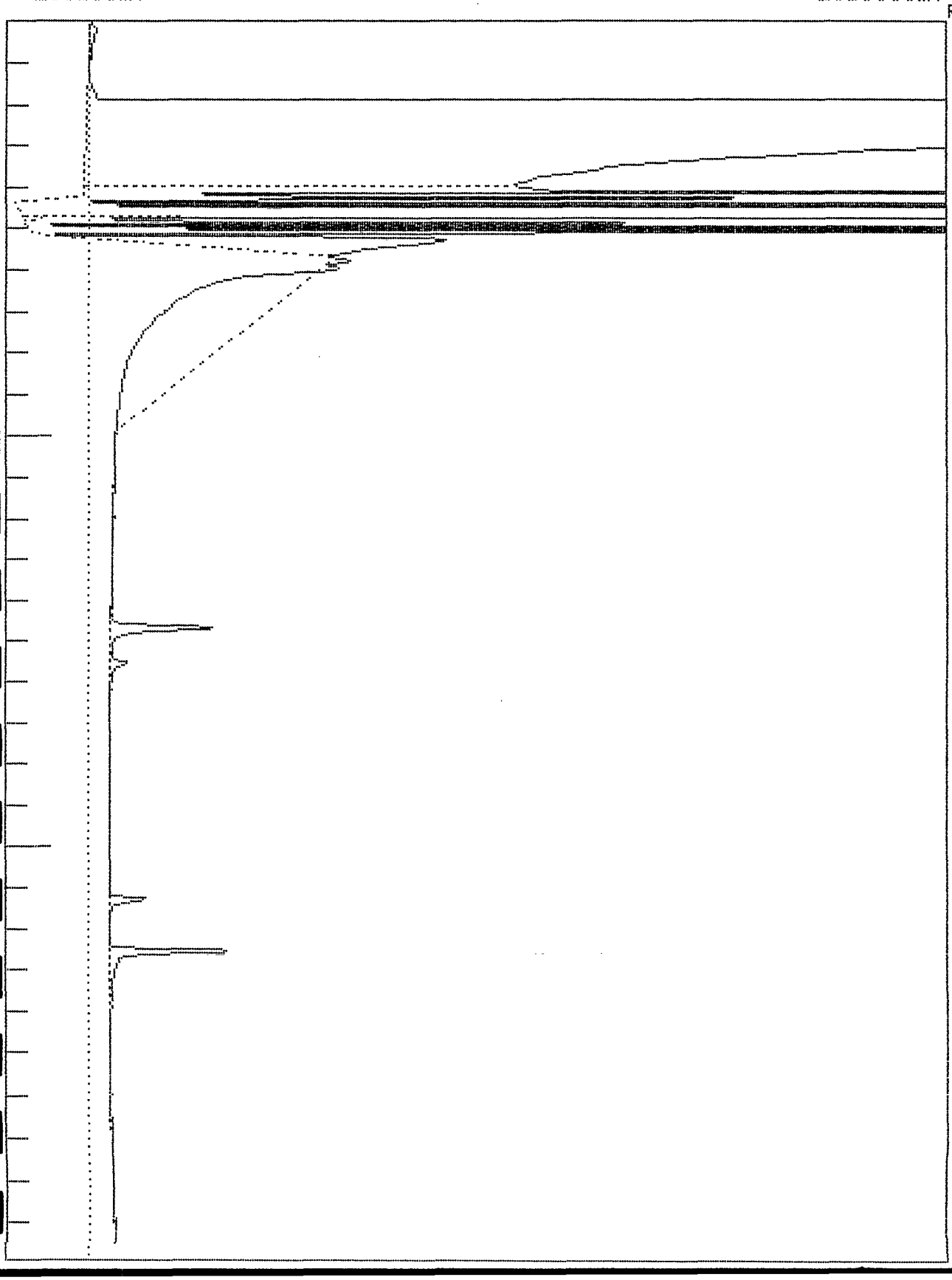
Operator : PEARCE

-25.600mV 256.000mV



Retention	Area	
0.250	67.39	
1.966	104900.42	
4.383	45607.81	
4.683	16556.74	
5.016	6520.40	
5.266	1688.39	M
5.766	45.00	M
14.666	319.88	M
15.533	59.59	M
21.266	122.52	M
22.533	385.54	M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
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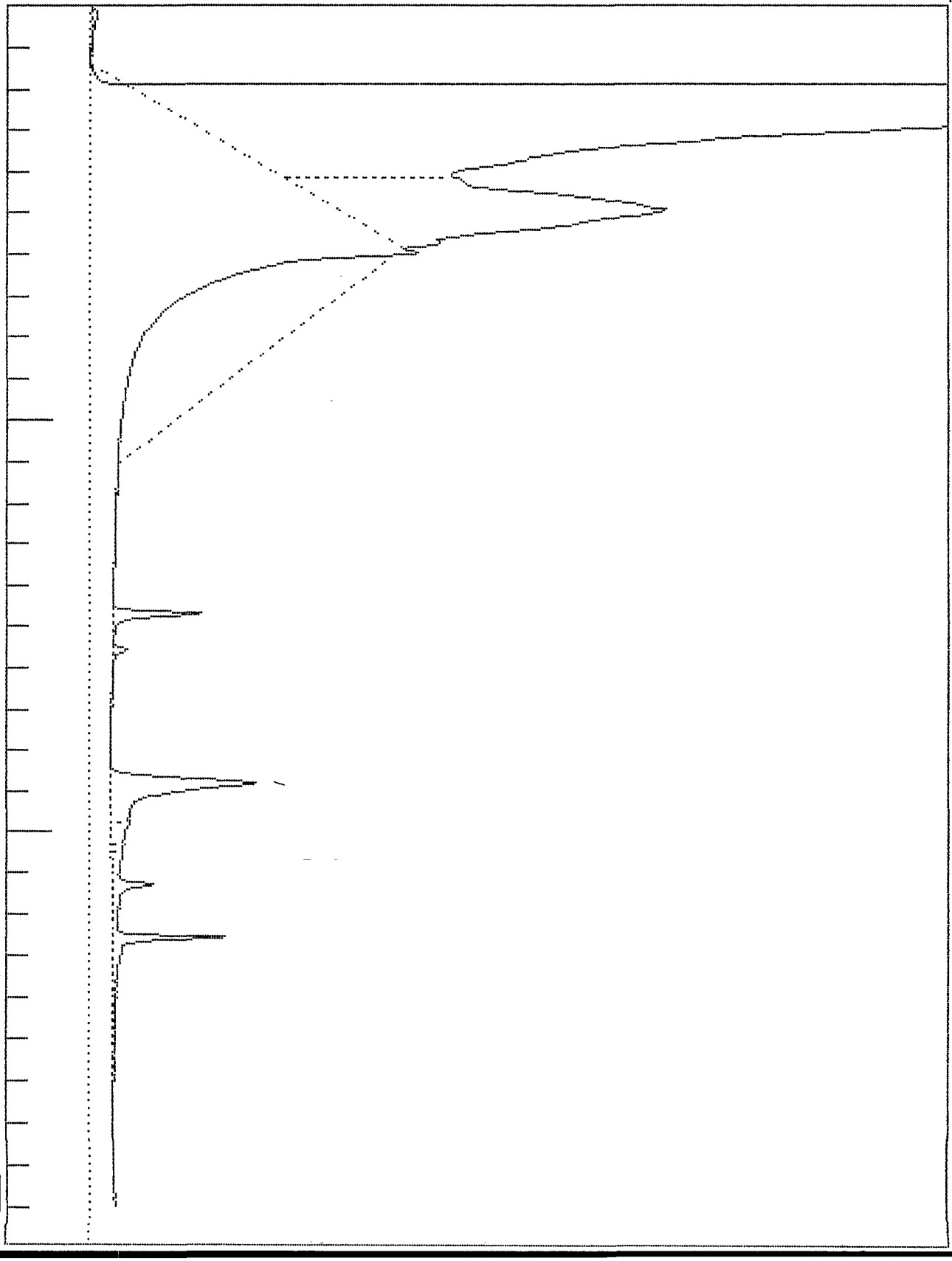
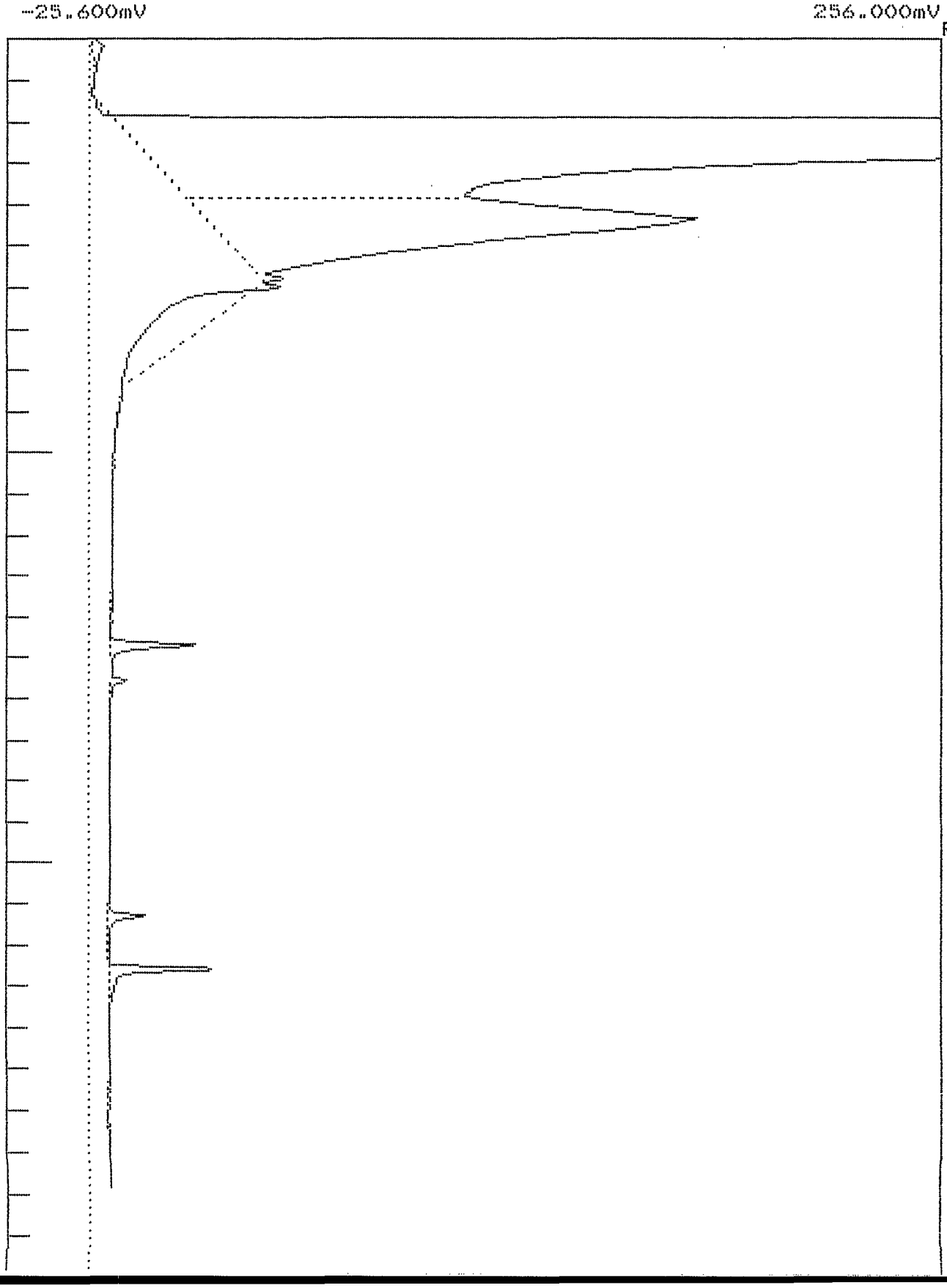
Operator : PEARCE

-25.600mV 256.000mV



Retention	Area
0.183	41.09
1.950	84017.58 M
4.900	6182.30 M
14.683	270.98 M
15.550	44.44 M
18.800	1099.88 M
19.716	151.60 M
20.566	101.32 M
21.300	206.23 M
21.900	41.22 M
22.550	397.68 M
23.683	14.11 M
24.533	16.06 M

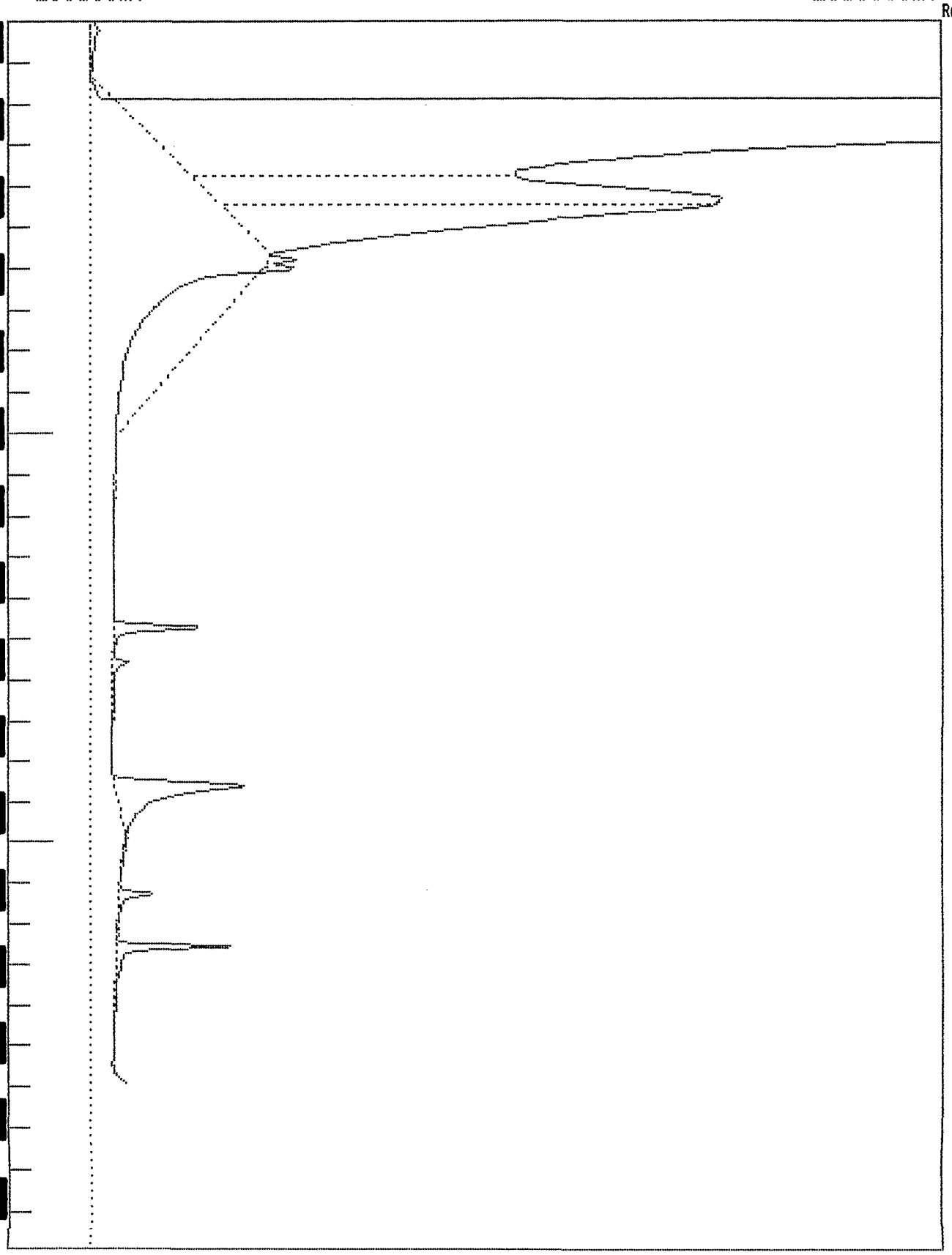
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF53.CHR ()
Operator : PEARCE



Retention	Area
0.200	73.87
1.933	94779.98 M
4.316	9448.41 M
5.783	52.42 M
14.683	258.61
15.566	45.87
21.300	114.17
22.566	327.82

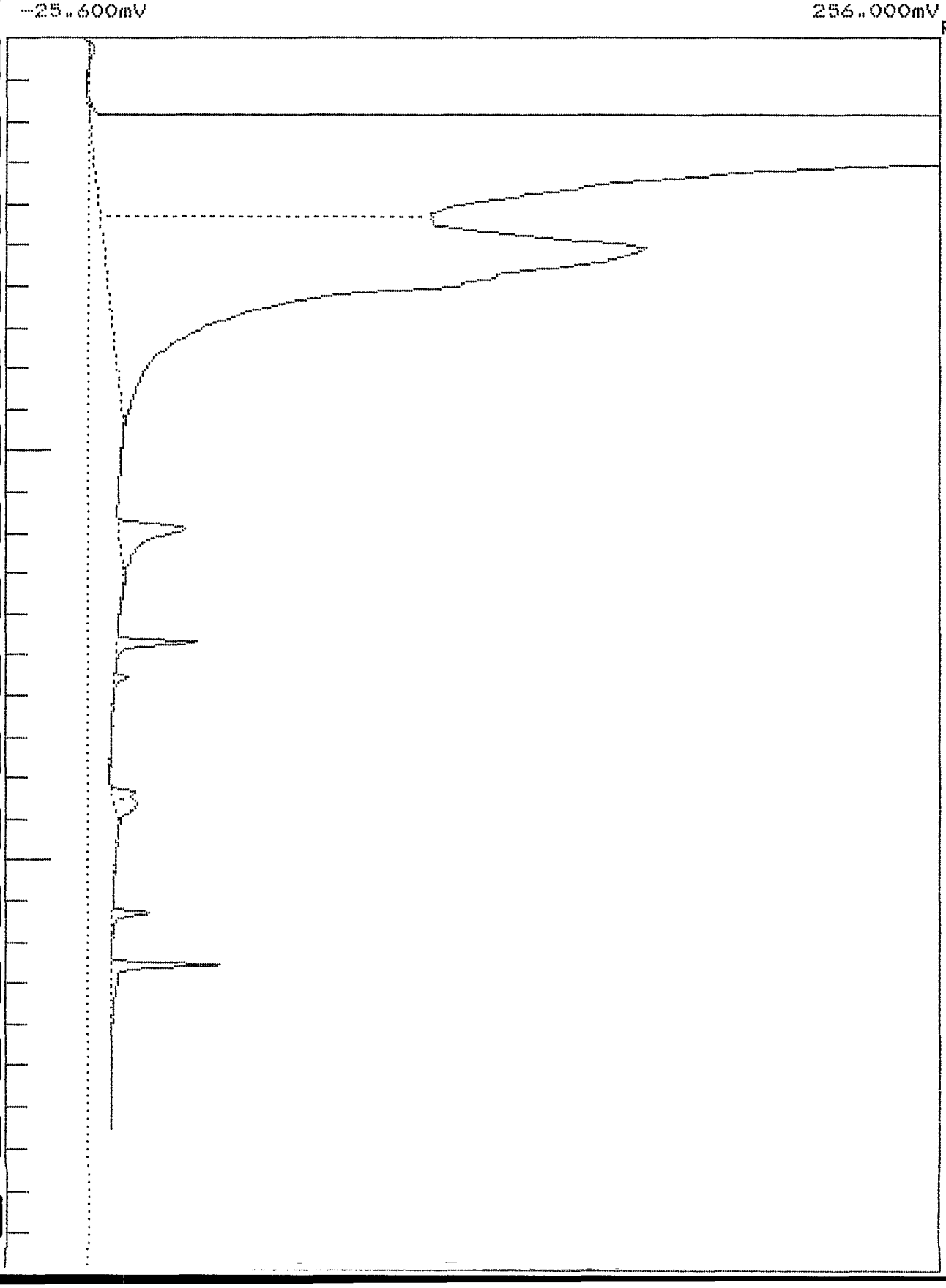
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF54.CHR ()
Operator : PEARCE

-25.600mV 256.000mV



Retention	Area
0.216	70.64
1.950	92014.08 M
4.283	5268.85 M
4.416	5356.74 M
5.783	67.03 M
14.700	284.06 M
15.566	56.35 M
18.616	998.82 M
21.266	118.38 M
22.550	343.21

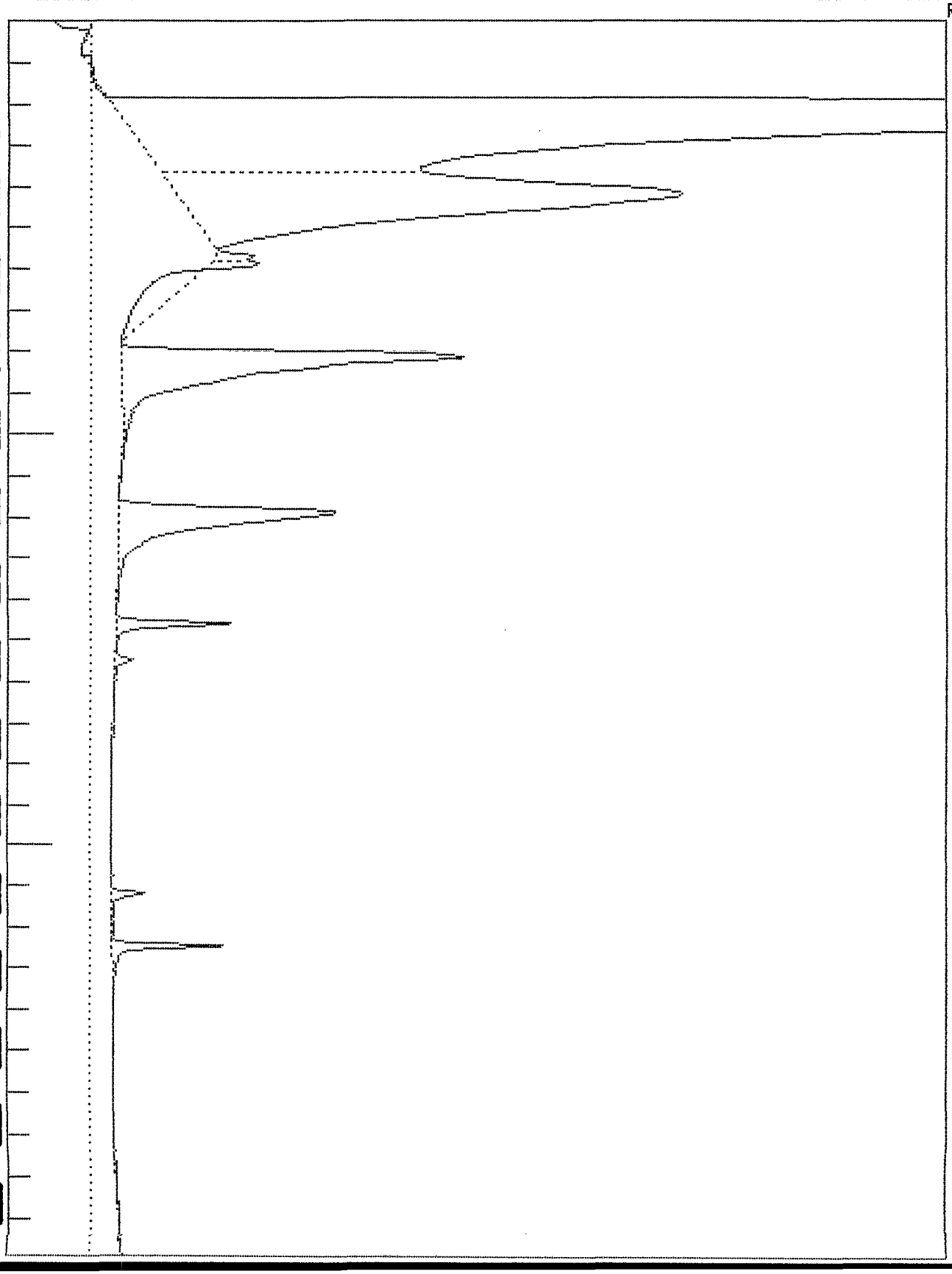
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF55.CHR ()
Operator : PEARCE



Retention	Area
0.233	23.14
1.983	107203.52 M
5.050	18158.10 M
11.866	574.25 M
14.683	253.89 M
15.566	46.23 M
18.366	74.20 M
18.650	167.98 M
21.283	119.24 M
22.533	281.64 M
22.900	60.85 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF56.CHR ()
Operator : PEARCE

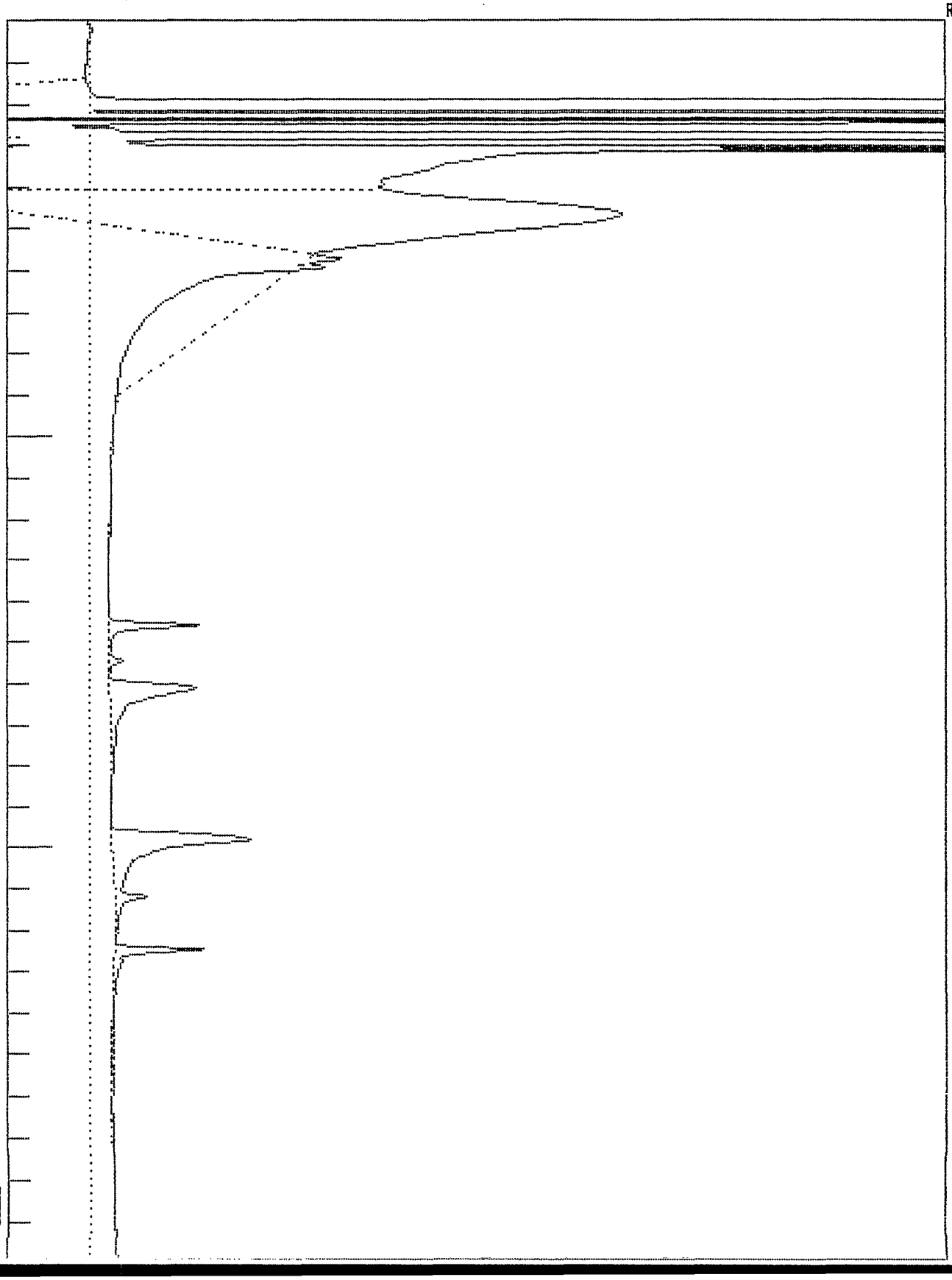
-25.600mV 256.000mV



Retention	Area
0.866	22.11
1.933	79376.83 M
4.166	9443.95 M
5.700	106.05 M
8.133	3560.83 M
10.166	16.30 M
11.866	2074.93 M
14.600	354.04 M
15.466	59.35 M
21.200	102.11 M
22.450	303.03 M
23.166	10.61 M

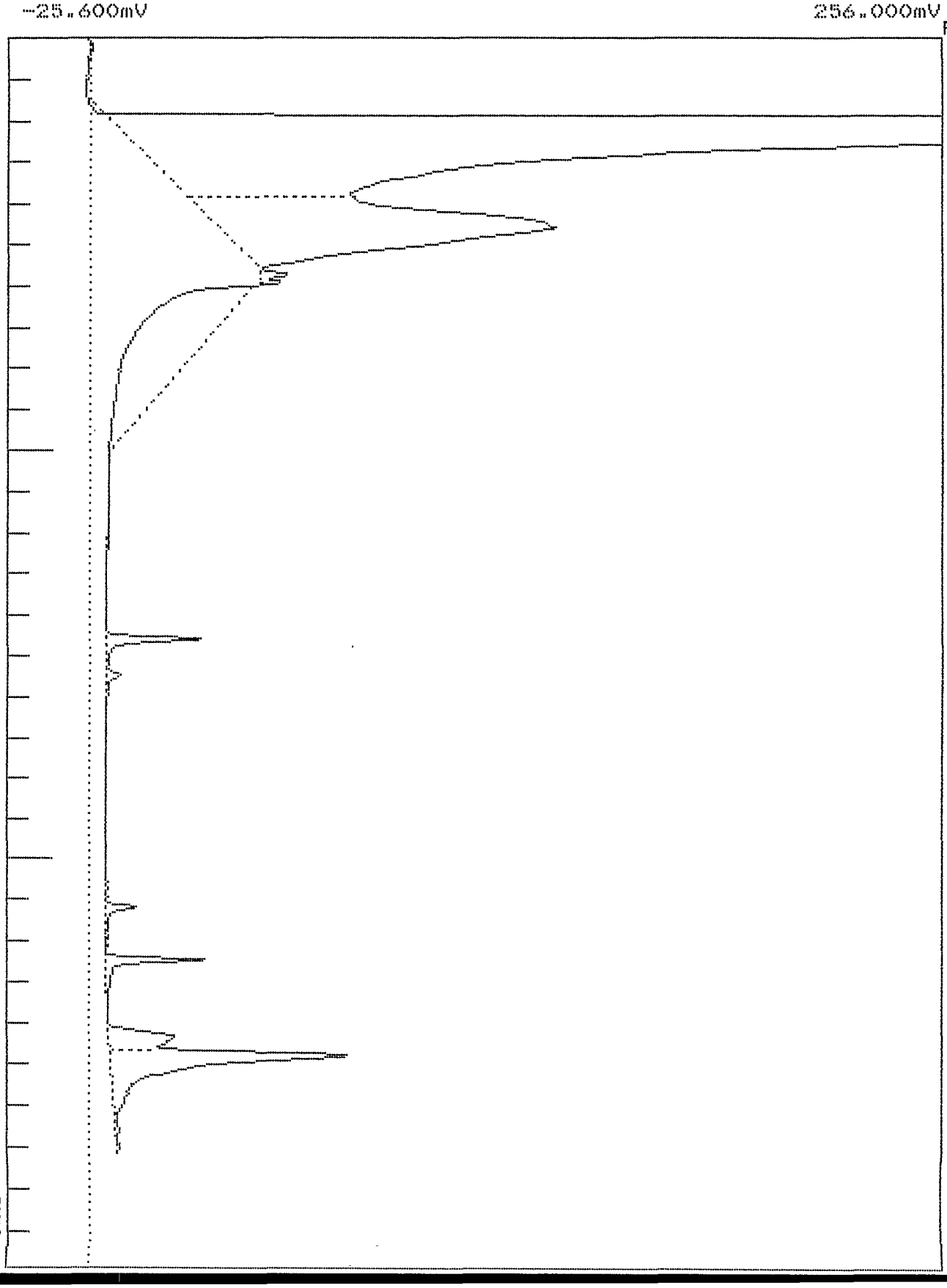
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF57.CHR ()
Operator : PEARCE

-25.600mV 256.000mV



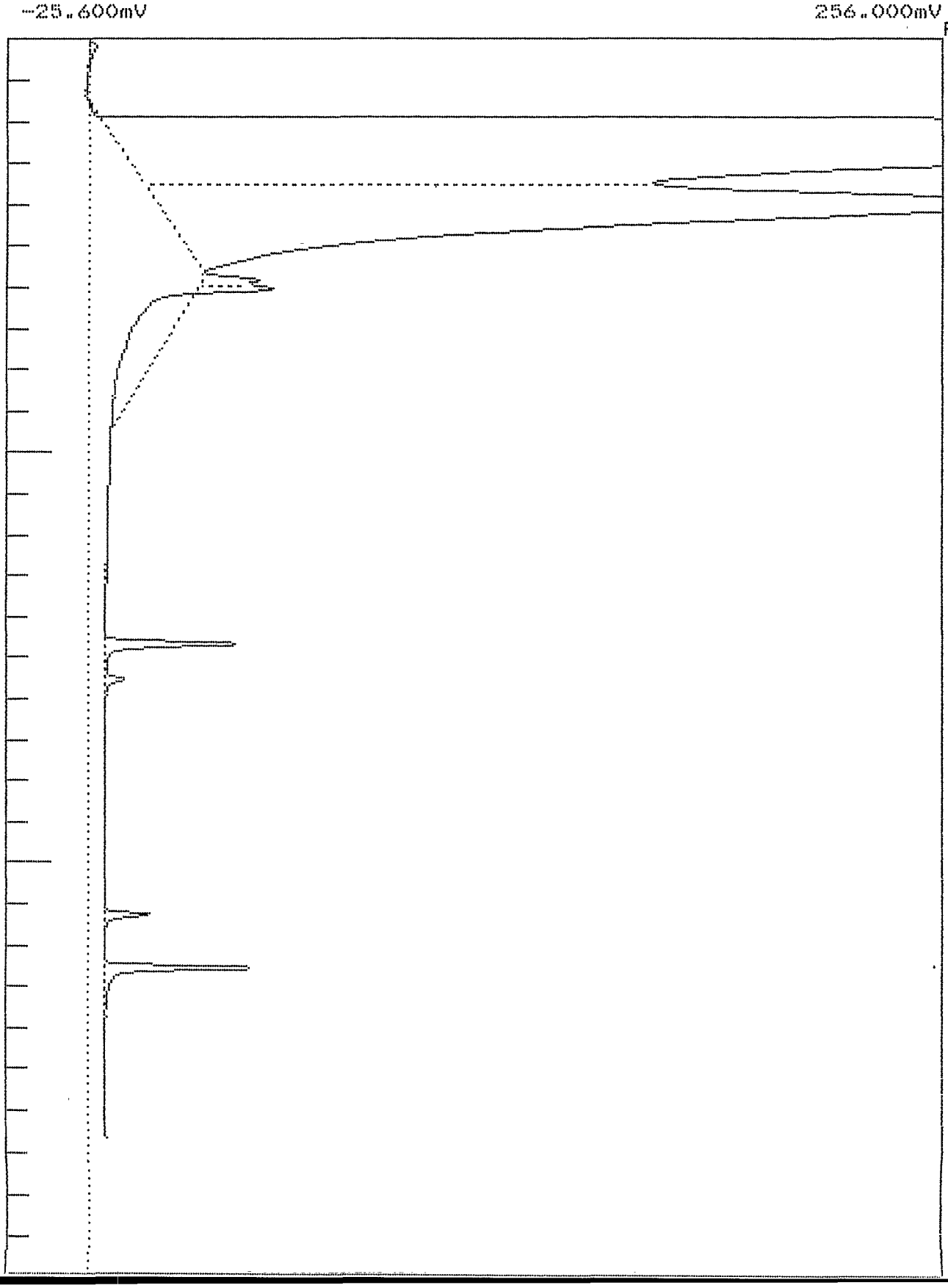
Retention	Area
1.966	49939.00
2.383	19595.34 M
2.783	19125.87 M
2.983	23026.21 M
4.650	11847.80 M
5.700	76.96 M
14.583	274.33 M
15.450	43.43 M
16.100	726.37 M
19.800	1117.87 M
21.183	140.84 M
22.450	286.33 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF58.CHR ()
Operator : PEARCE



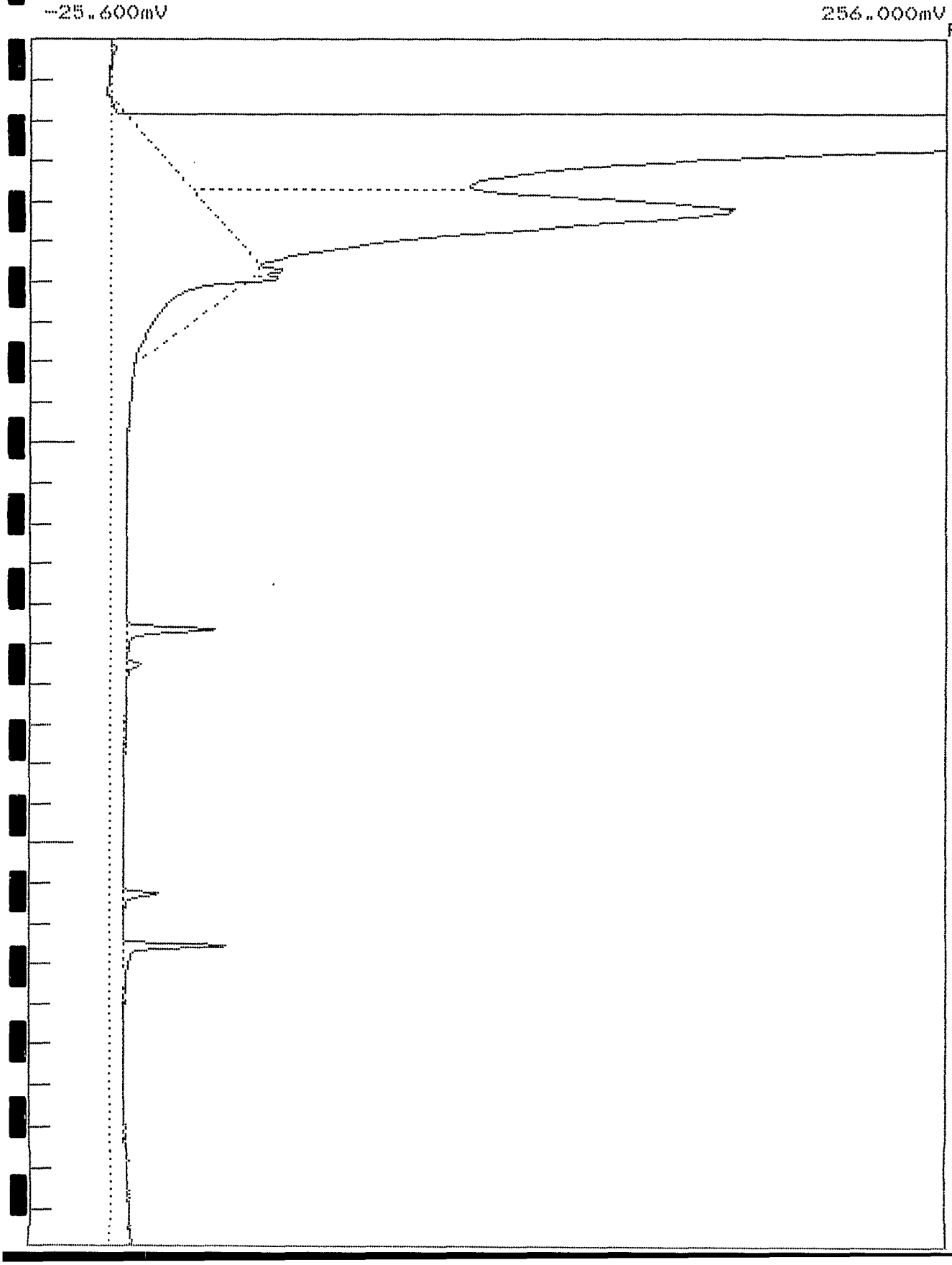
Retention	Area
1.950	73179.32 M
4.583	6444.29 M
5.716	72.14 M
14.583	281.60 M
15.450	51.00 M
21.200	93.97 M
22.450	294.97 M
24.366	437.50 M
24.766	1798.01 M
26.583	16.84 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF59.CHR ()
Operator : PEARCE



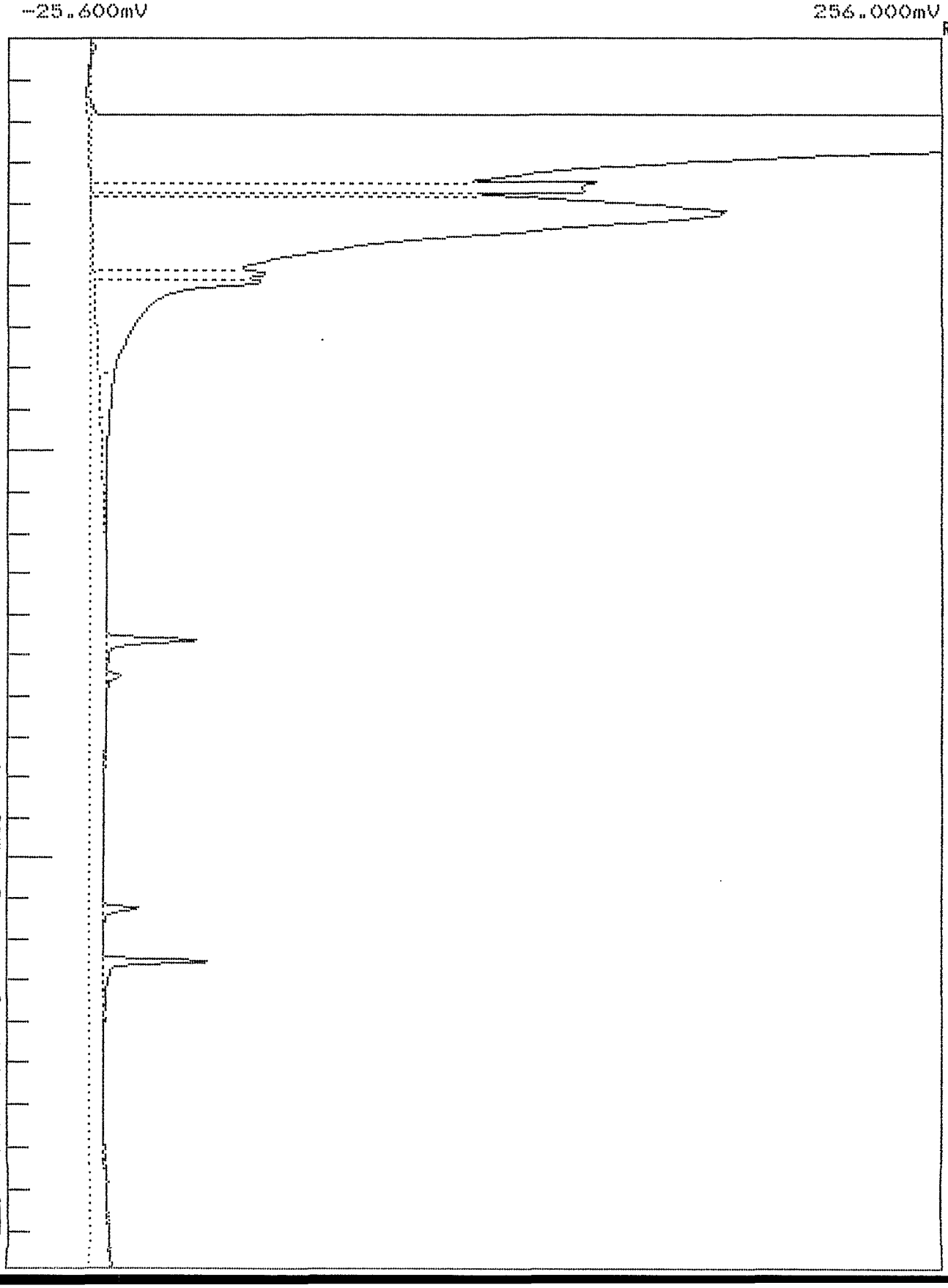
Retention	Area
0.183	47.55
2.000	98353.61 M
3.866	15871.99 M
5.816	165.88 M
14.650	426.71 M
15.533	79.58 M
21.250	133.47
22.516	446.54

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF60.CHR ()
Operator : PEARCE



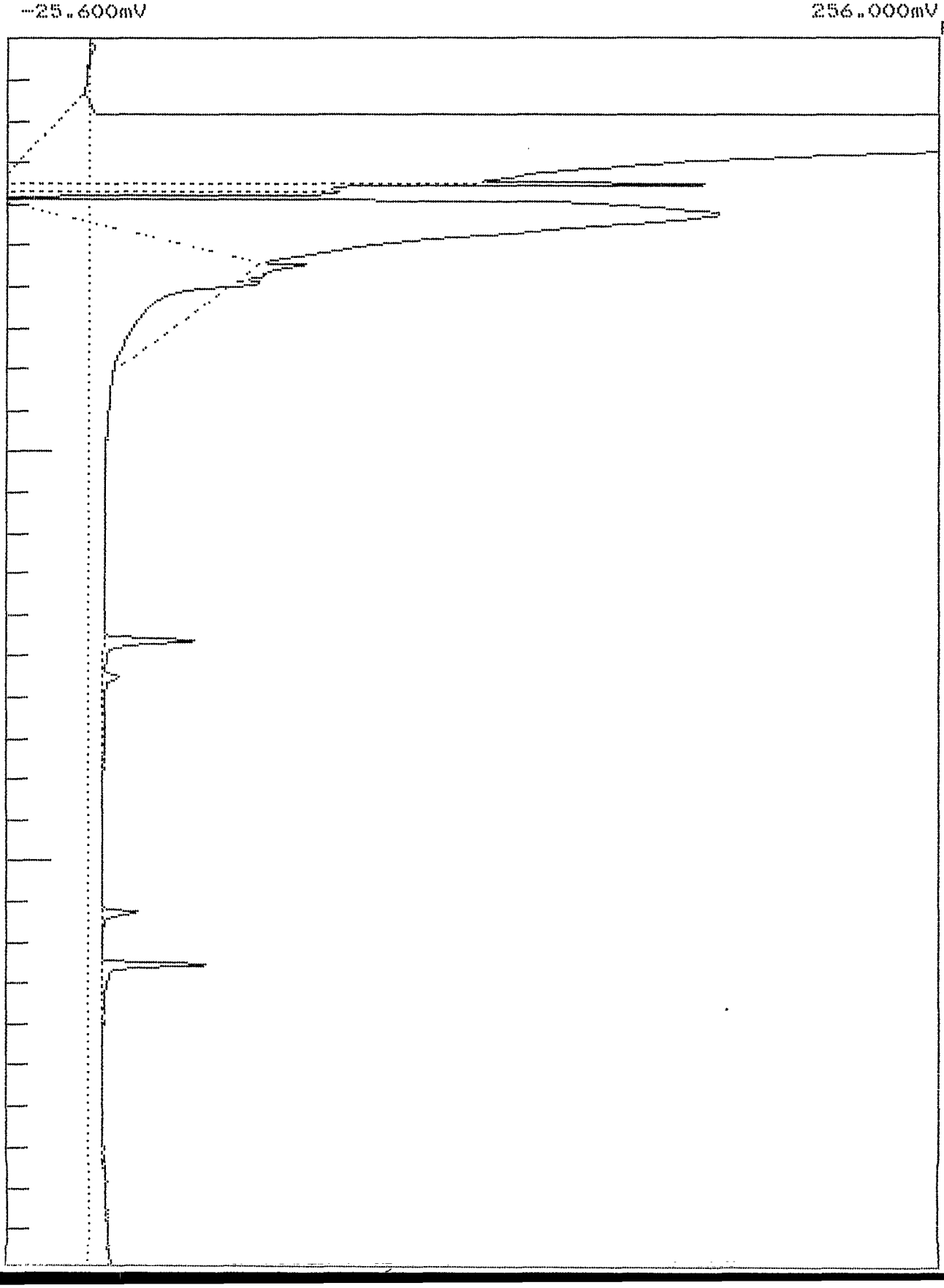
Retention	Area
0.200	23.14
1.950	80909.98 M
4.166	10084.82 M
5.716	65.48 M
14.616	297.75 M
15.516	67.83 M
21.250	103.74
22.533	303.67

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF61.CHR ()
Operator : PEARCE



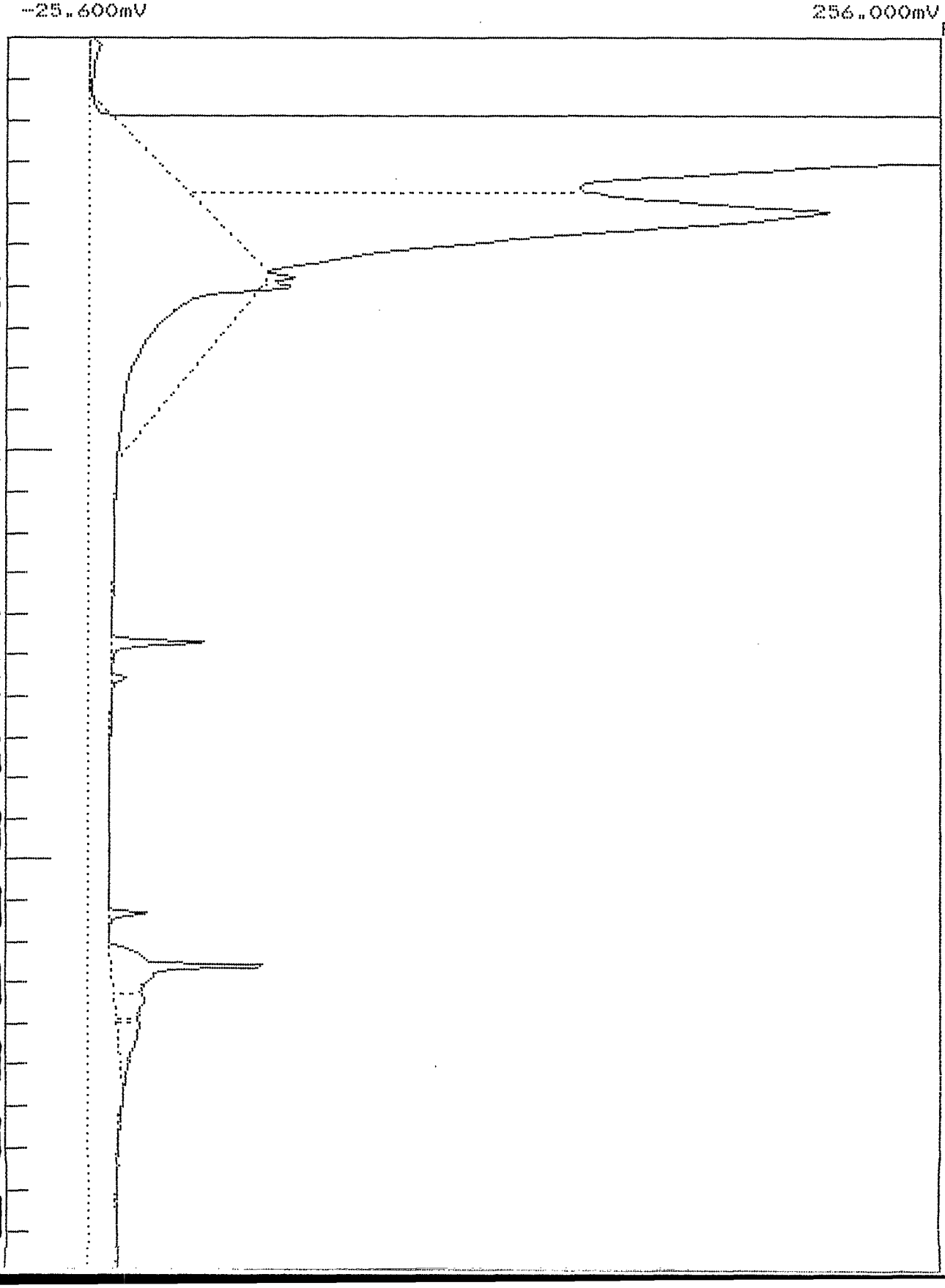
Retention	Area
0.200	23.14
1.950	81323.76
3.450	2066.13
3.733	749.29
4.166	13258.45
5.716	688.14
5.900	2181.78
8.150	240.04
9.166	119.20
10.083	22.52
10.583	22.78
10.966	11.06
14.616	289.78
15.516	59.63
21.250	105.38
22.533	318.75

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF62.CHR ()
Operator : PEARCE



Retention	Area	
0.200	23.14	
1.950	83070.27	
3.500	1938.49	
3.733	874.81	
4.200	10599.61	M
5.450	169.01	M
14.616	301.20	M
15.516	72.25	M
21.250	108.84	M
22.533	331.43	M
23.533	13.98	M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGF63.CHR ()
Operator : PEARCE

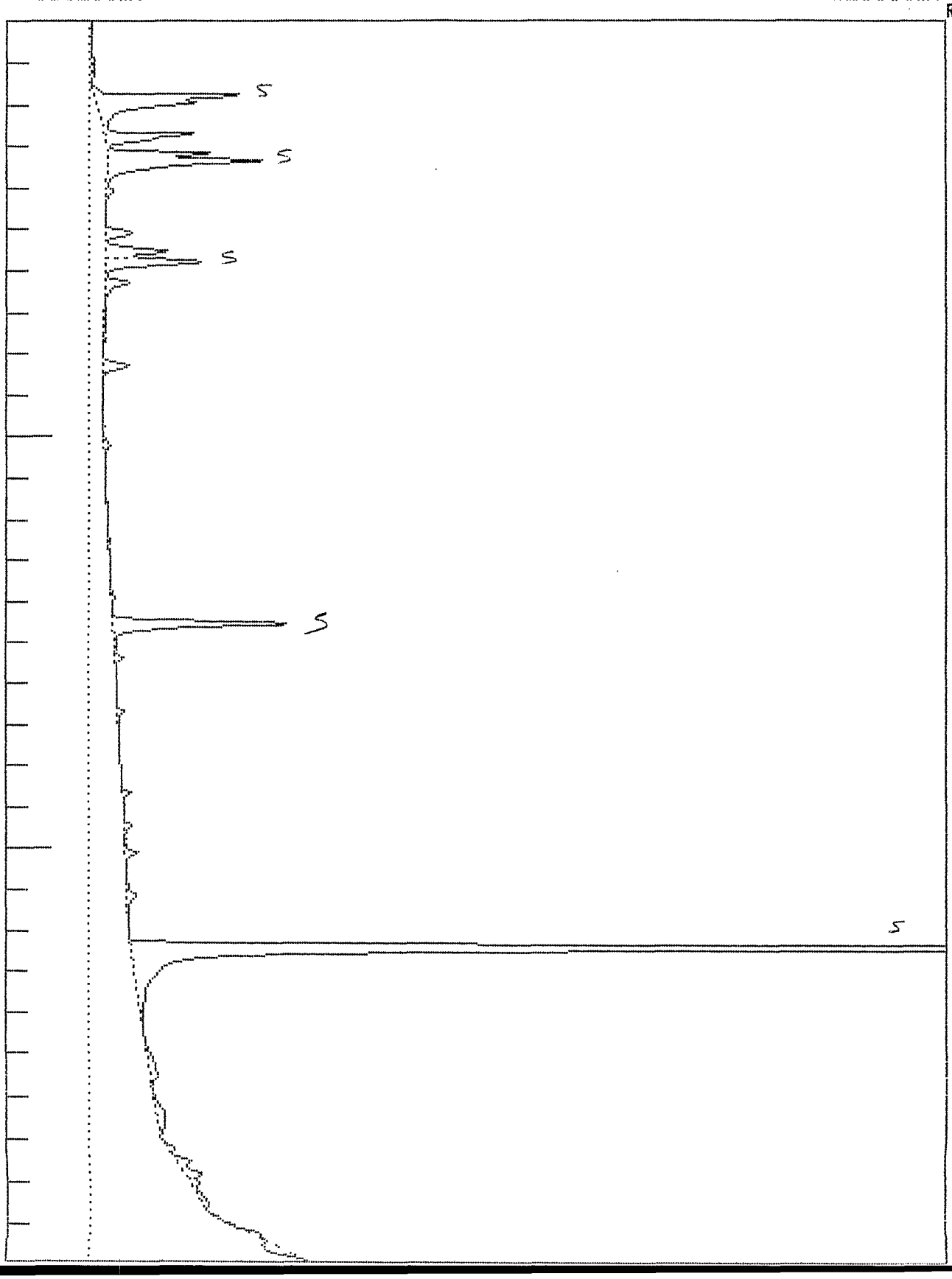


Retention	Area
0.183	109.61
1.950	101215.43 M
4.200	11977.63 M
5.783	69.80 M
14.683	283.67 M
15.550	56.45 M
21.300	106.42
22.566	950.13
23.416	299.81
23.966	299.01
24.883	69.42

APPENDIX C
PHOTO-IONIZATION DETECTOR CHROMATOGRAMS

INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Avenue
Colton, California 92324
(909) 872-0501 FAX (909) 824-1442

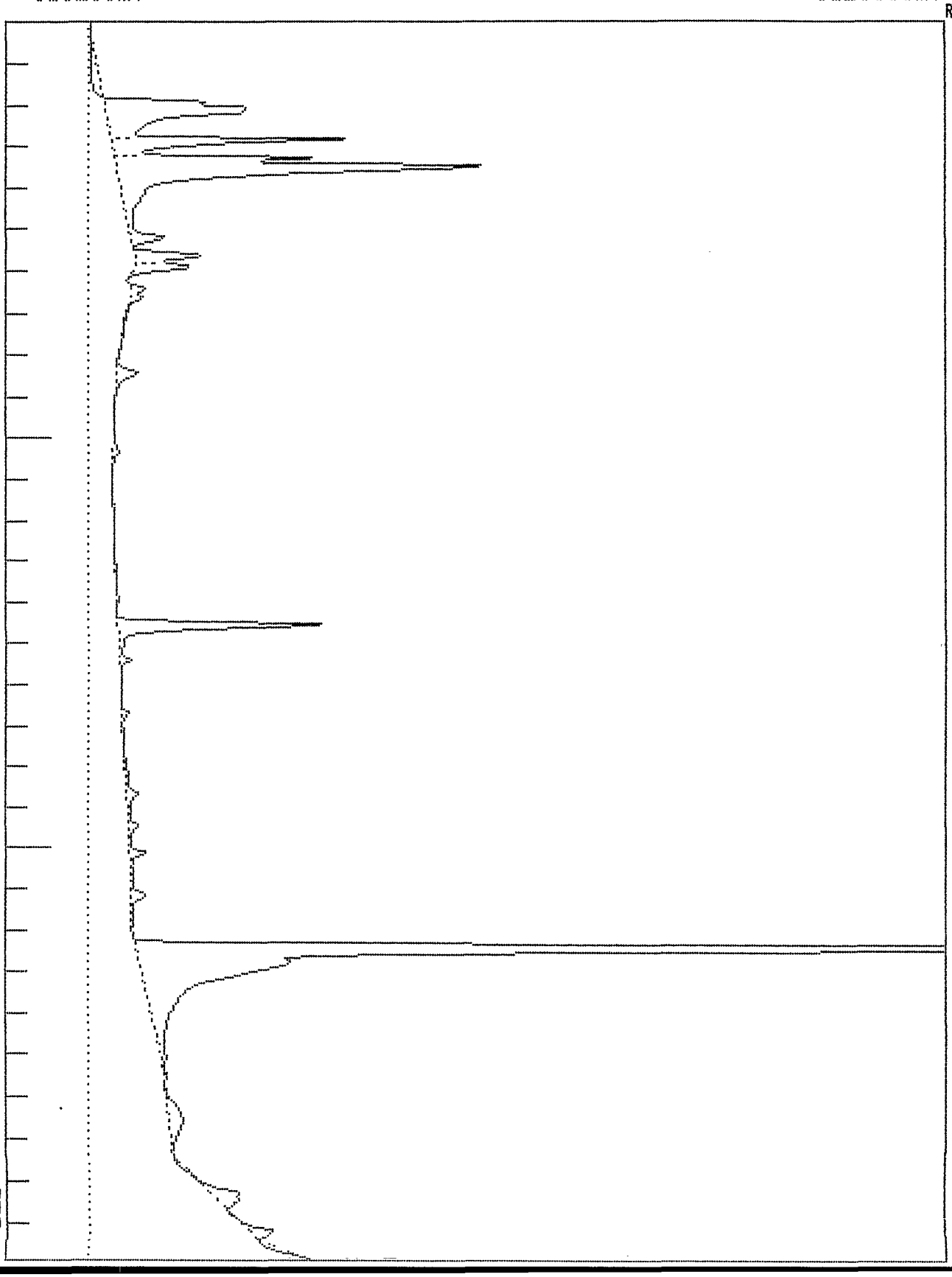
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF38.CHR ()
Operator : PEARCE



Retention	Area
1.766	1465.74
2.700	577.75
3.333	1646.16
4.066	53.14
5.083	204.91
5.766	727.45
6.283	216.38
7.683	14.72
8.283	196.35
10.233	43.83
13.916	17.26
14.516	1179.61
15.366	44.79
16.683	35.25
18.666	30.33
19.450	48.41
20.116	79.20
21.166	125.50
21.783	10.20
22.400	7840.73
25.516	162.13
26.466	194.50
28.033	46.31
28.550	74.87

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF39.CHR ()
Operator : PEARCE

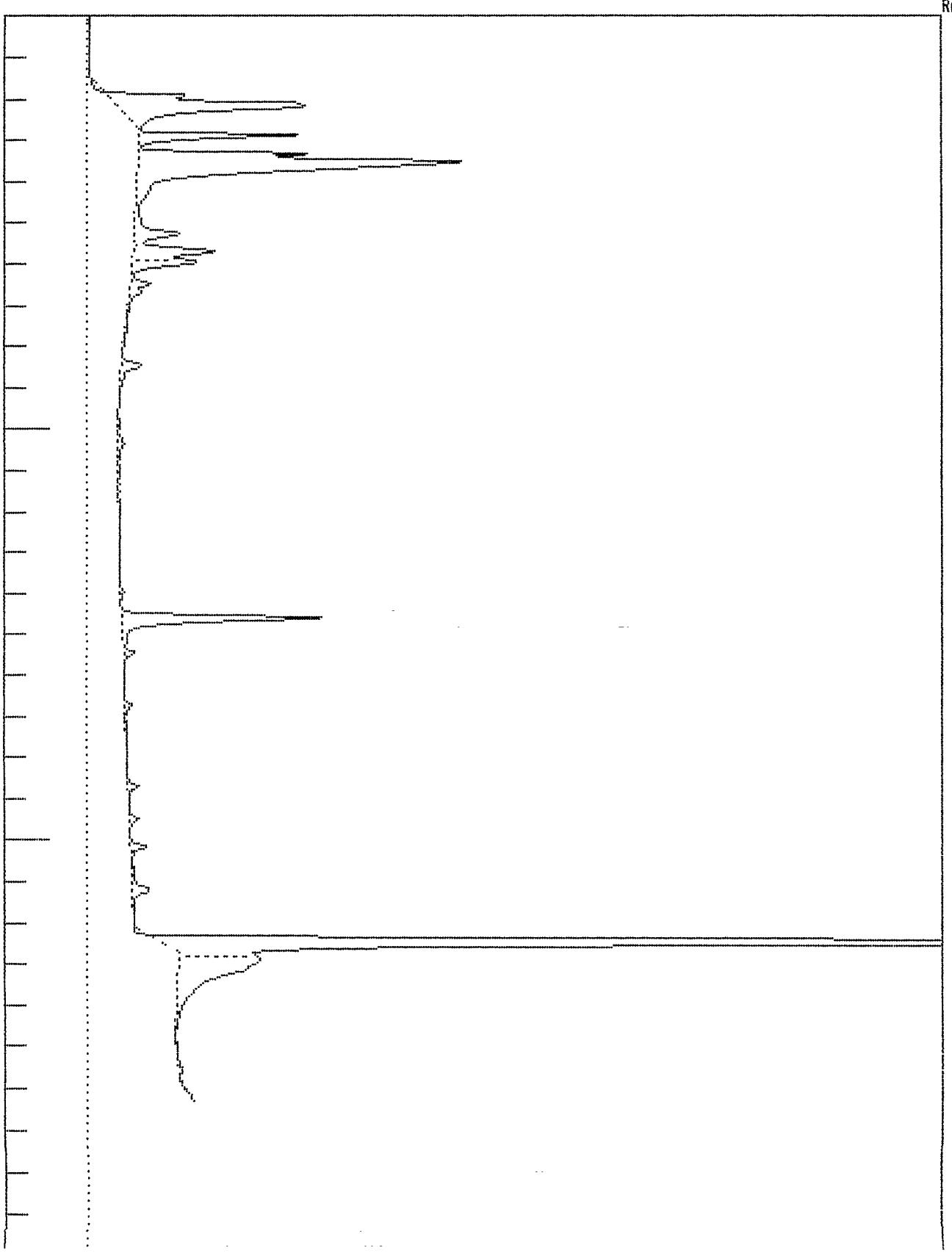
-51.200mV 512.000mV



Retention	Area
2.150	2101.36 M
2.833	1461.20 M
3.483	5161.40 M
5.200	304.08 M
5.633	433.65 M
5.900	405.21 M
6.416	83.03 M
6.633	45.31 M
7.550	17.36 M
8.433	202.72 M
10.333	52.47 M
13.950	23.12 M
14.533	1421.66 M
15.400	61.10 M
16.700	47.59 M
17.133	14.14 M
18.683	221.86 M
19.466	91.93 M
20.116	113.91 M
20.733	34.13 M
21.150	154.44 M
22.416	12639.12 M
25.066	65.80 M
25.550	22.60 M
26.516	407.85 M
28.283	302.80 M
29.183	177.50 M

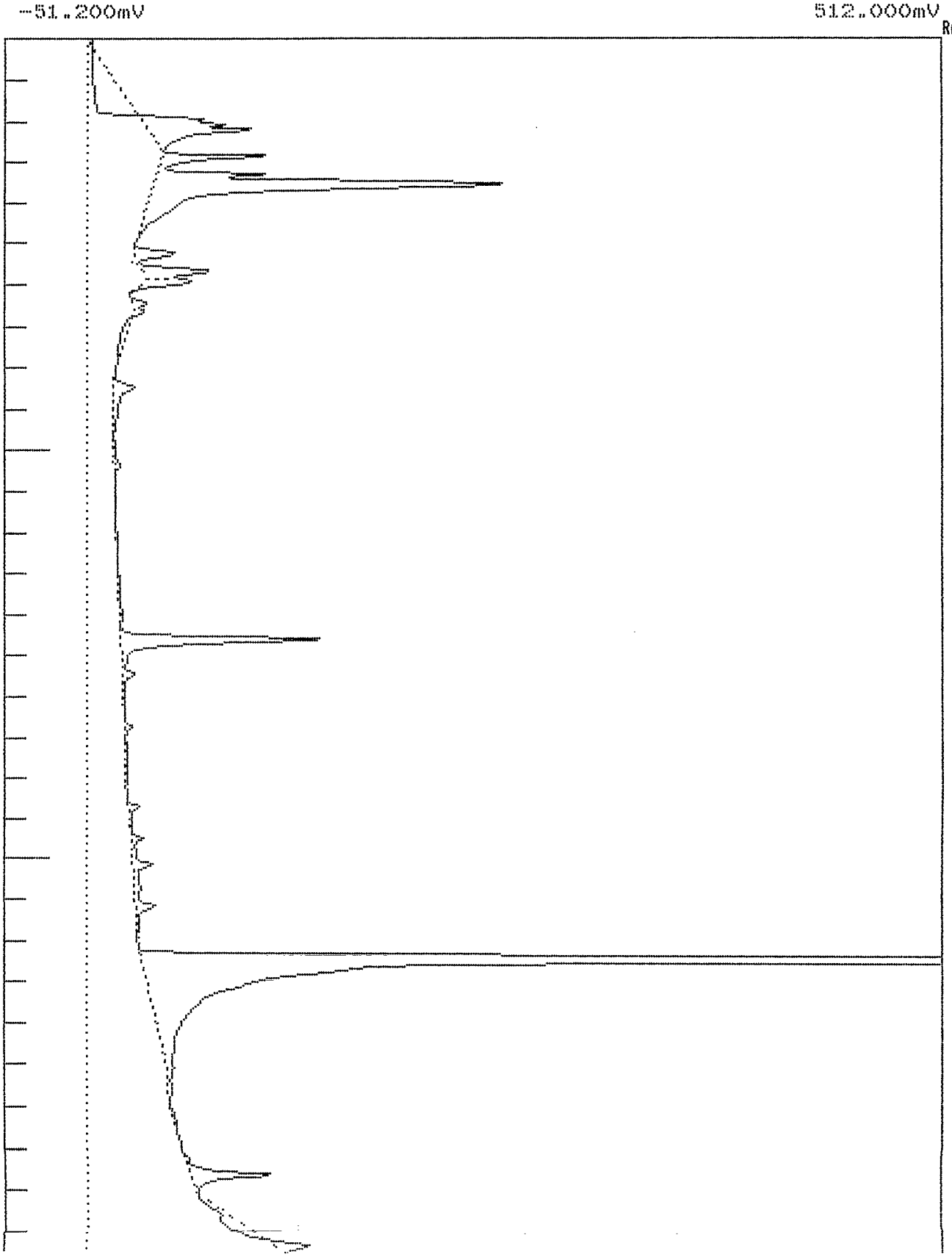
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF40.CHR ()
Operator : PEARCE

-51.200mV 512.000mV



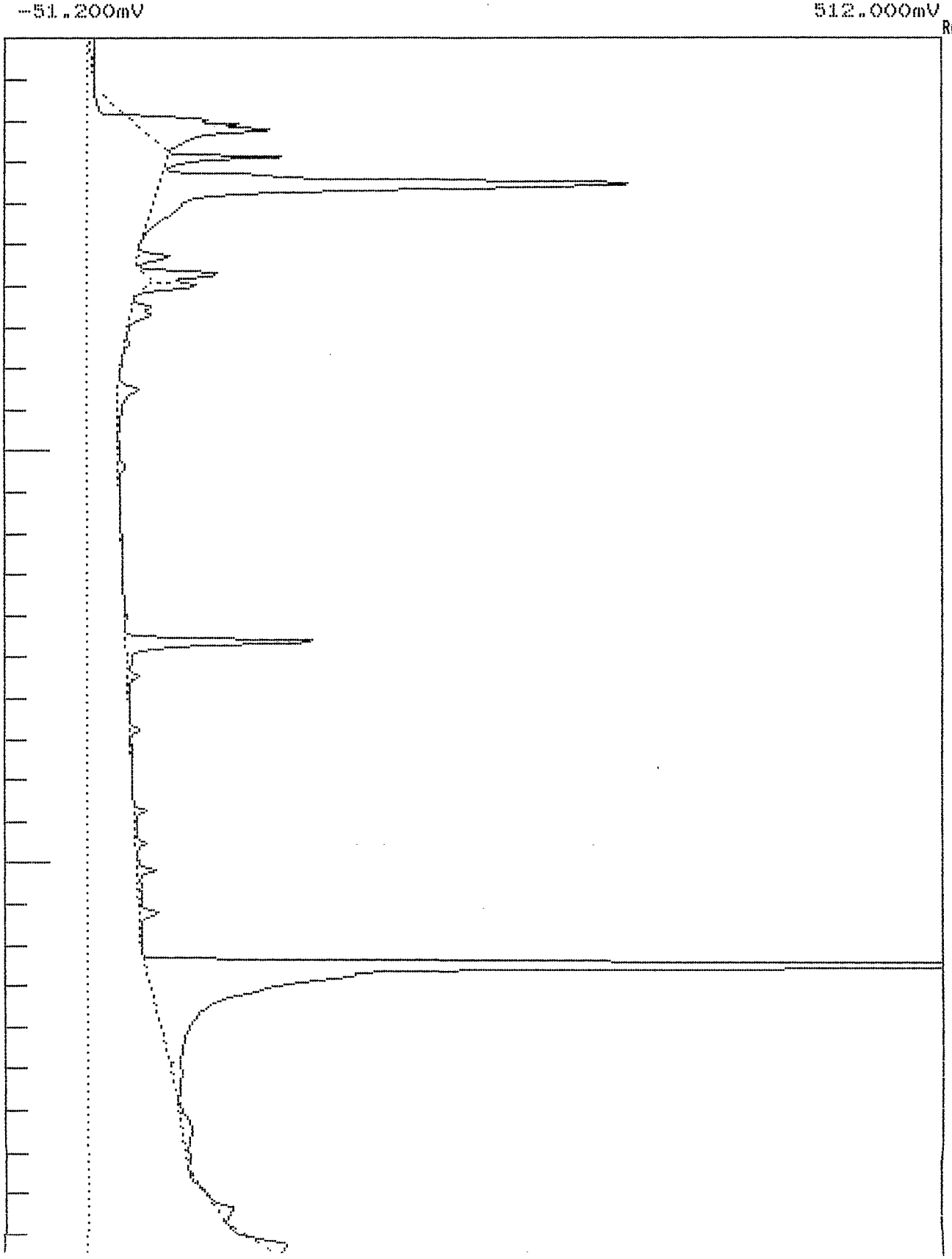
Retention	Area
0.033	13.83
2.183	2287.03 M
2.866	791.46 M
3.516	4624.95 M
5.266	451.10 M
5.700	617.90 M
5.950	540.30 M
6.483	239.85 M
7.583	33.84 M
8.466	197.09 M
10.366	51.97 M
13.983	21.84
14.583	1390.49
15.450	77.32
16.116	16.61
16.750	46.53
17.166	12.06
18.716	84.29
19.500	60.54
20.150	106.54
21.183	219.45
22.433	8807.62
22.900	2002.83
25.083	13.74
25.550	29.41

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF41.CHR ()
Operator : PEARCE



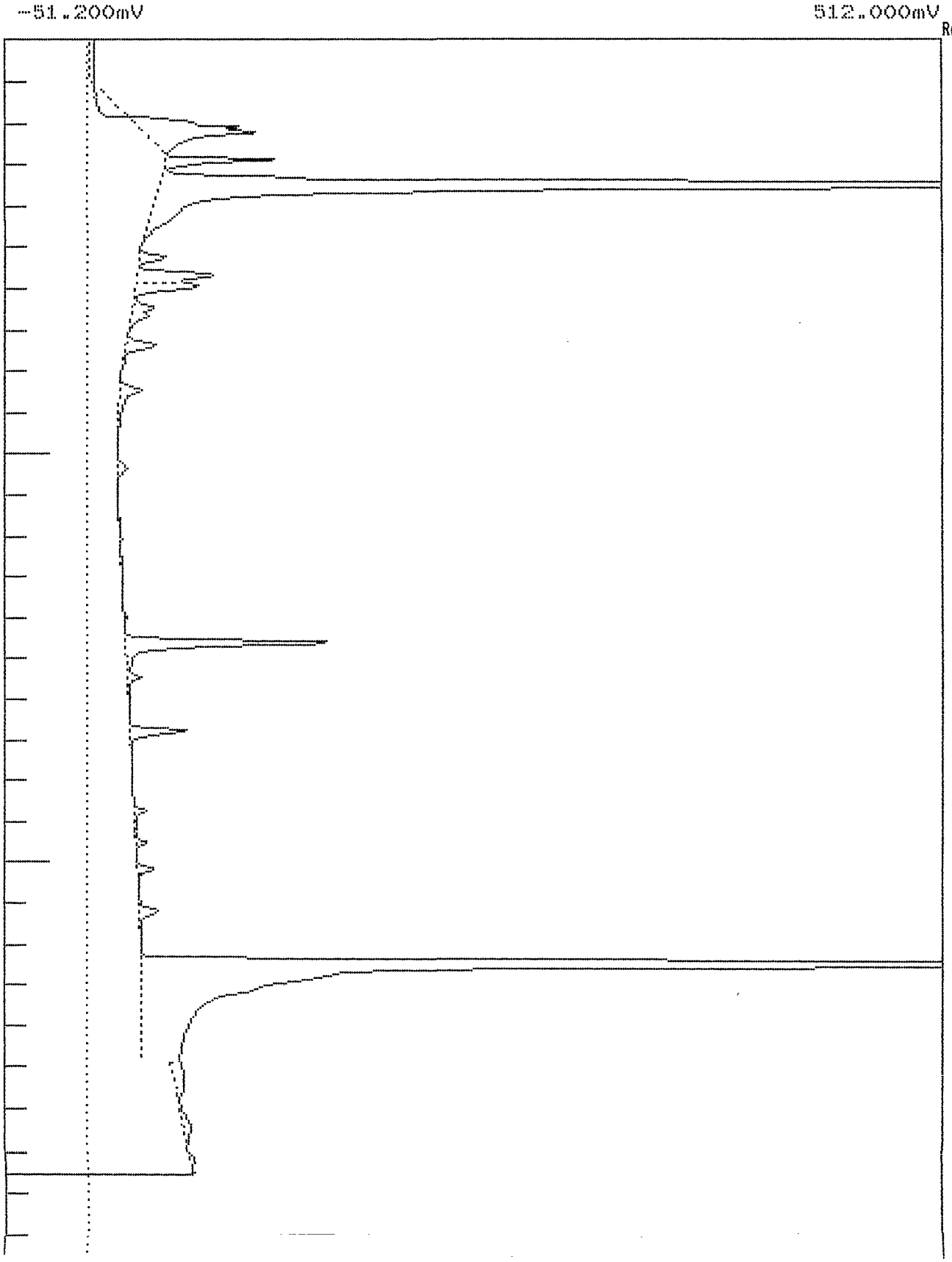
Retention	Area
0.083	16.43
2.183	186.29 M
2.833	545.64 M
3.516	4372.99 M
5.250	312.08 M
5.683	453.56 M
5.933	342.40 M
6.450	74.79 M
8.466	274.64 M
10.366	54.40 M
12.100	21.76 M
12.566	18.68 M
13.983	97.60 M
14.583	1440.12 M
15.450	132.57 M
16.750	80.35 M
17.166	25.60 M
17.950	32.77 M
18.700	64.13 M
19.116	10.41 M
19.483	78.63 M
20.133	231.14 M
20.733	77.31 M
21.150	189.35 M
22.416	14065.18 M
25.083	70.23 M
25.550	47.01 M
26.383	30.35 M
27.600	603.85 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF42.CHR ()
Operator : PEARCE



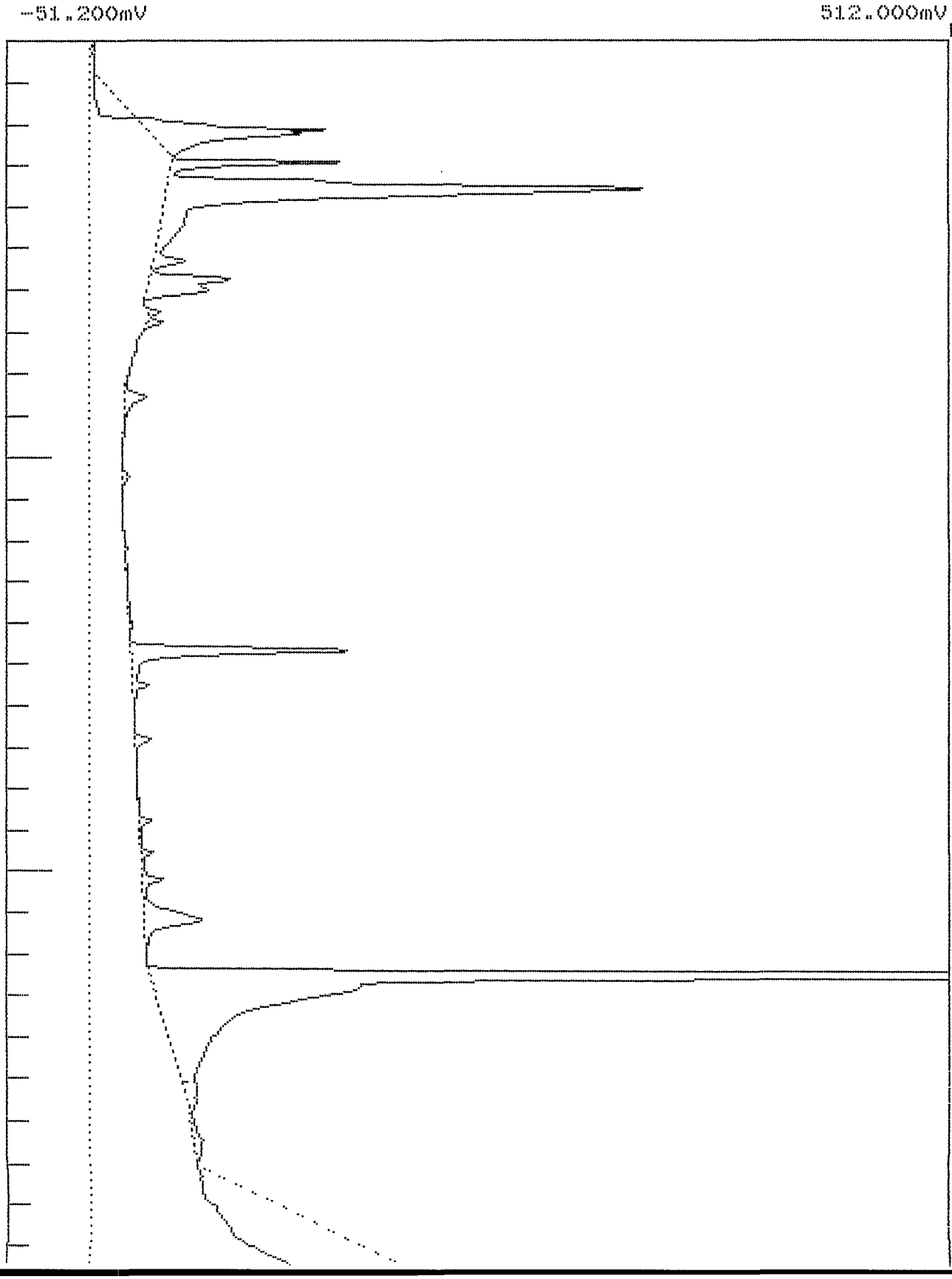
Retention	Area
0.950	122.19 M
2.216	1582.08 M
2.866	509.77 M
3.500	5611.20 M
5.283	230.75 M
5.716	499.36 M
5.983	365.75 M
6.700	285.94 M
7.400	43.74 M
8.516	278.36 M
10.383	62.48 M
14.000	22.04 M
14.600	1345.61 M
15.466	96.06 M
16.766	59.90 M
18.733	91.00 M
19.516	79.06 M
20.166	125.99 M
20.550	29.92 M
20.766	24.35 M
21.200	186.03 M
22.450	14270.64 M
25.100	200.60 M
25.550	34.90 M
26.416	269.62 M
27.116	39.71 M
28.350	114.40 M
29.283	181.75 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF43.CHR ()
Operator : PEARCE



Retention	Area
0.800	155.80 M
2.200	1201.44 M
2.866	531.21 M
3.466	10699.91 M
5.233	178.02 M
5.683	567.00 M
5.933	521.60 M
6.450	276.43 M
7.366	264.23 M
8.466	264.68 M
10.366	85.50
14.000	18.26
14.600	1446.52
15.466	101.92
16.766	373.28
18.733	78.44
19.516	64.95
20.166	107.30
21.183	160.53
22.450	14521.60
25.133	235.69
25.533	77.82
26.416	168.13
27.166	24.70

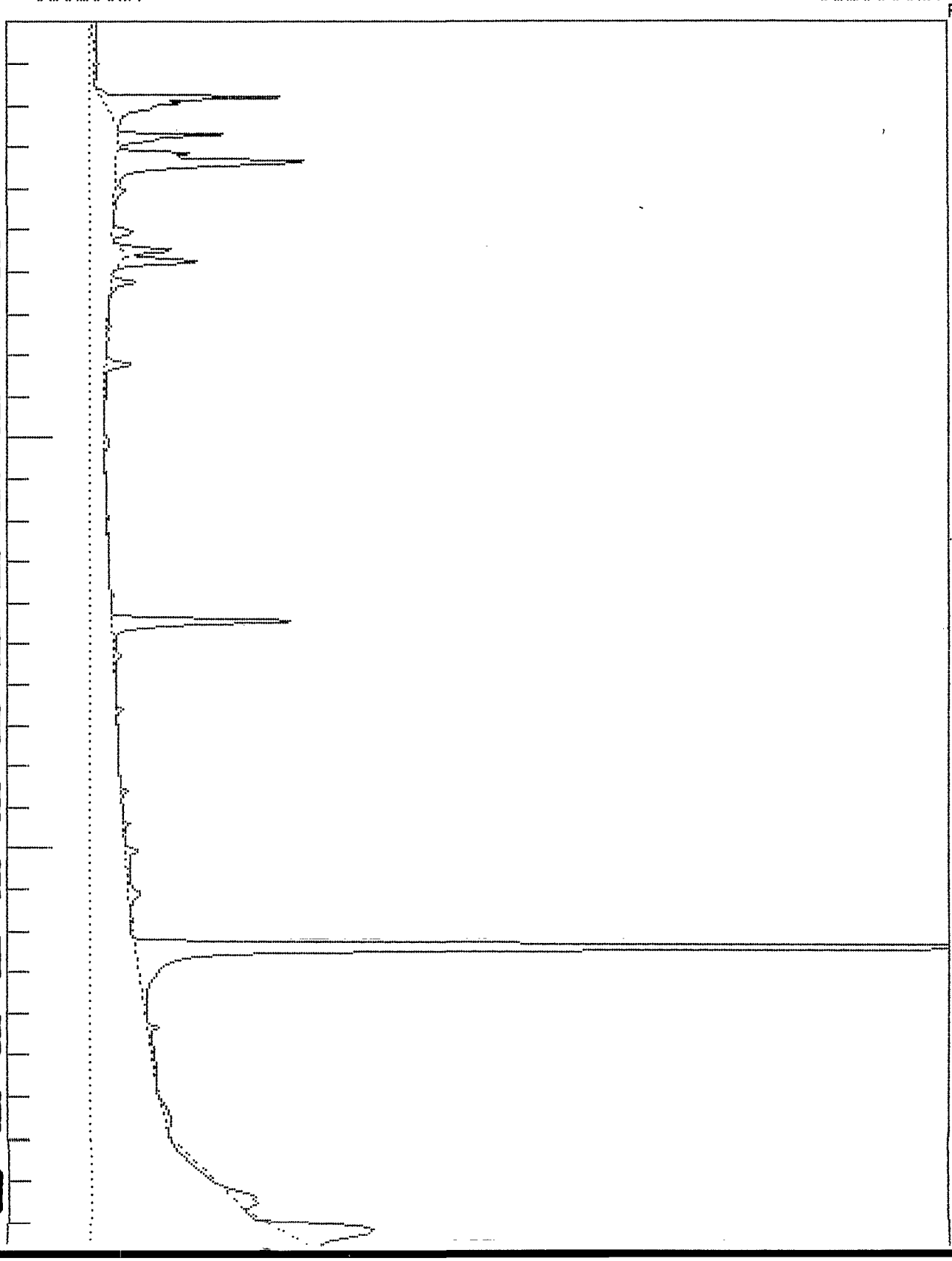
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF44.CHR ()
Operator : PEARCE



Retention	Area
0.116	16.56
2.133	1446.75 M
2.900	809.73 M
3.550	6582.79 M
5.300	238.18 M
5.750	1133.84 M
6.533	70.78 M
6.766	77.94 M
7.433	32.74 M
8.566	236.76 M
10.466	68.61 M
14.066	64.45 M
14.650	1641.39 M
15.516	133.61 M
16.800	106.26 M
18.766	82.64 M
19.550	92.00 M
20.200	179.44 M
21.183	909.26 M
22.483	16820.50 M
25.166	168.59 M
25.583	88.76 M
26.466	156.54 M
26.750	57.64 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF45.CHR ()
Operator : PEARCE

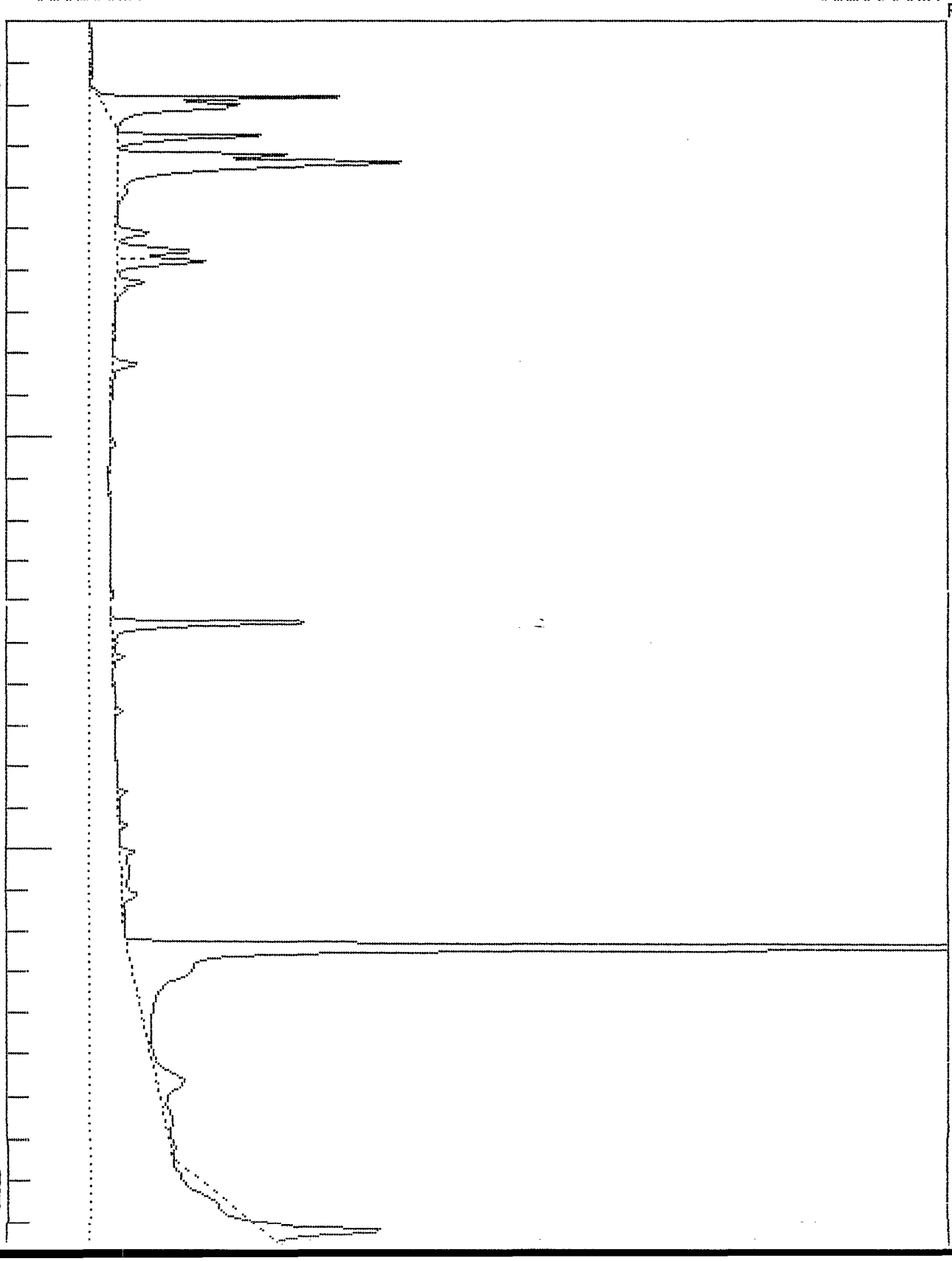
-51.200mV 512.000mV



Retention	Area
0.416	124.03
1.016	44.70
1.383	16.01
1.783	1318.53 M
2.683	520.04 M
3.350	1836.46 M
4.050	102.61 M
5.050	143.15 M
5.483	270.35 M
5.733	433.46 M
6.233	164.29 M
7.333	22.24 M
7.616	12.51 M
8.216	188.07 M
10.150	41.88 M
13.833	16.02 M
14.433	1254.87 M
15.300	60.60 M
16.616	41.92 M
18.350	11.11 M
18.616	35.65 M
19.416	36.26 M
20.066	97.73 M
21.116	181.10 M
21.750	14.61 M
22.350	7460.39 M
23.916	23.02 M
24.333	68.17 M
25.466	91.47 M
26.616	100.80 M
28.516	43.30 M
29.166	1278.77 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF46.CHR ()
Operator : PEARCE

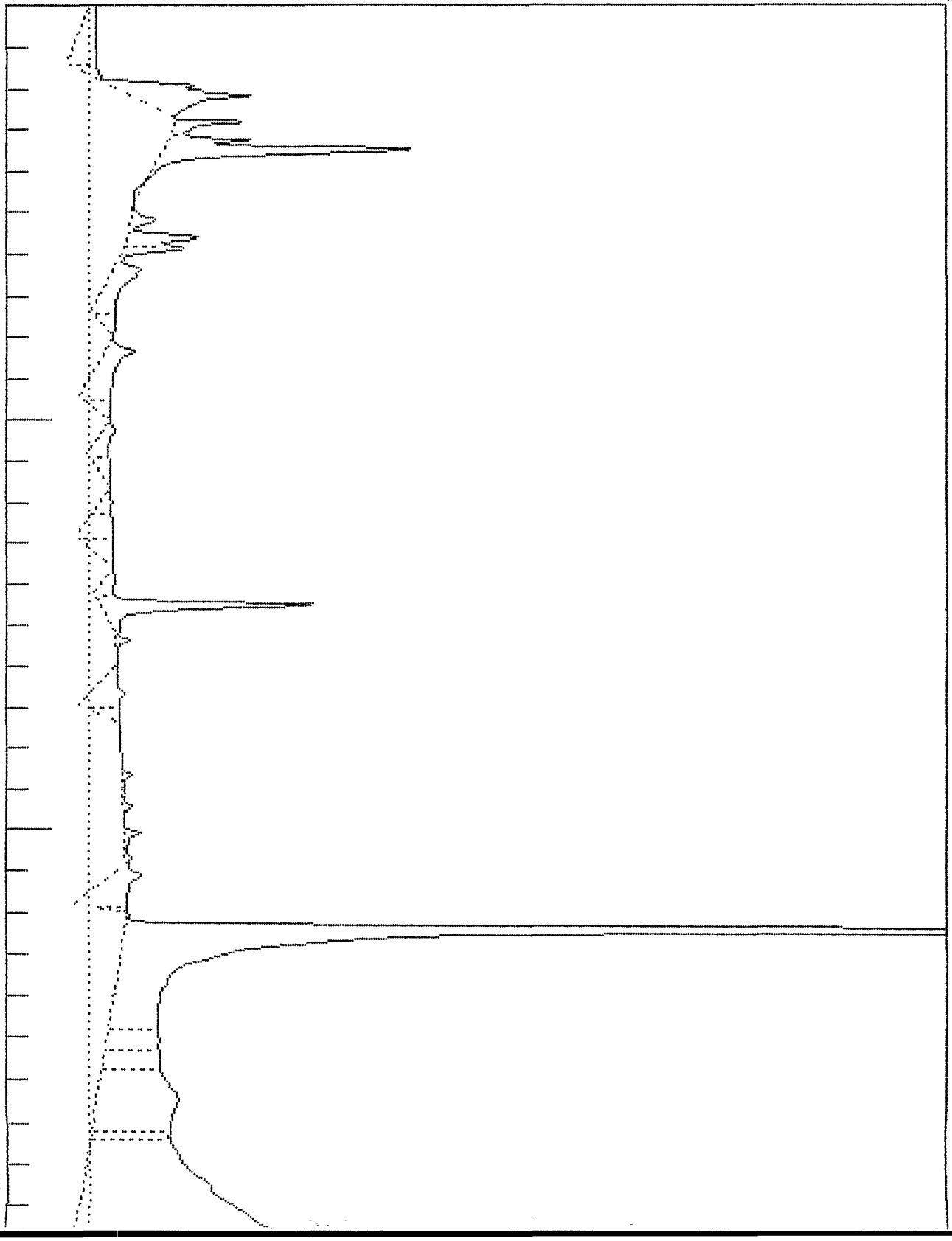
-51.200mV 512.000mV



Retention	Area
1.383	26.59
1.800	2045.66 M
2.750	753.23 M
3.383	3306.70 M
4.100	118.64 M
5.100	241.30 M
5.783	638.86 M
6.283	245.00 M
7.666	13.48 M
8.266	230.31 M
10.200	43.06 M
11.950	11.54 M
13.866	20.30 M
14.466	1389.14 M
15.333	68.59 M
16.650	42.26 M
18.616	64.27 M
19.416	46.52 M
20.066	97.08 M
20.566	156.07 M
21.100	155.13 M
22.366	9897.43 M
25.600	609.82 M
26.516	143.07 M
27.183	50.17 M
29.183	226.50 M

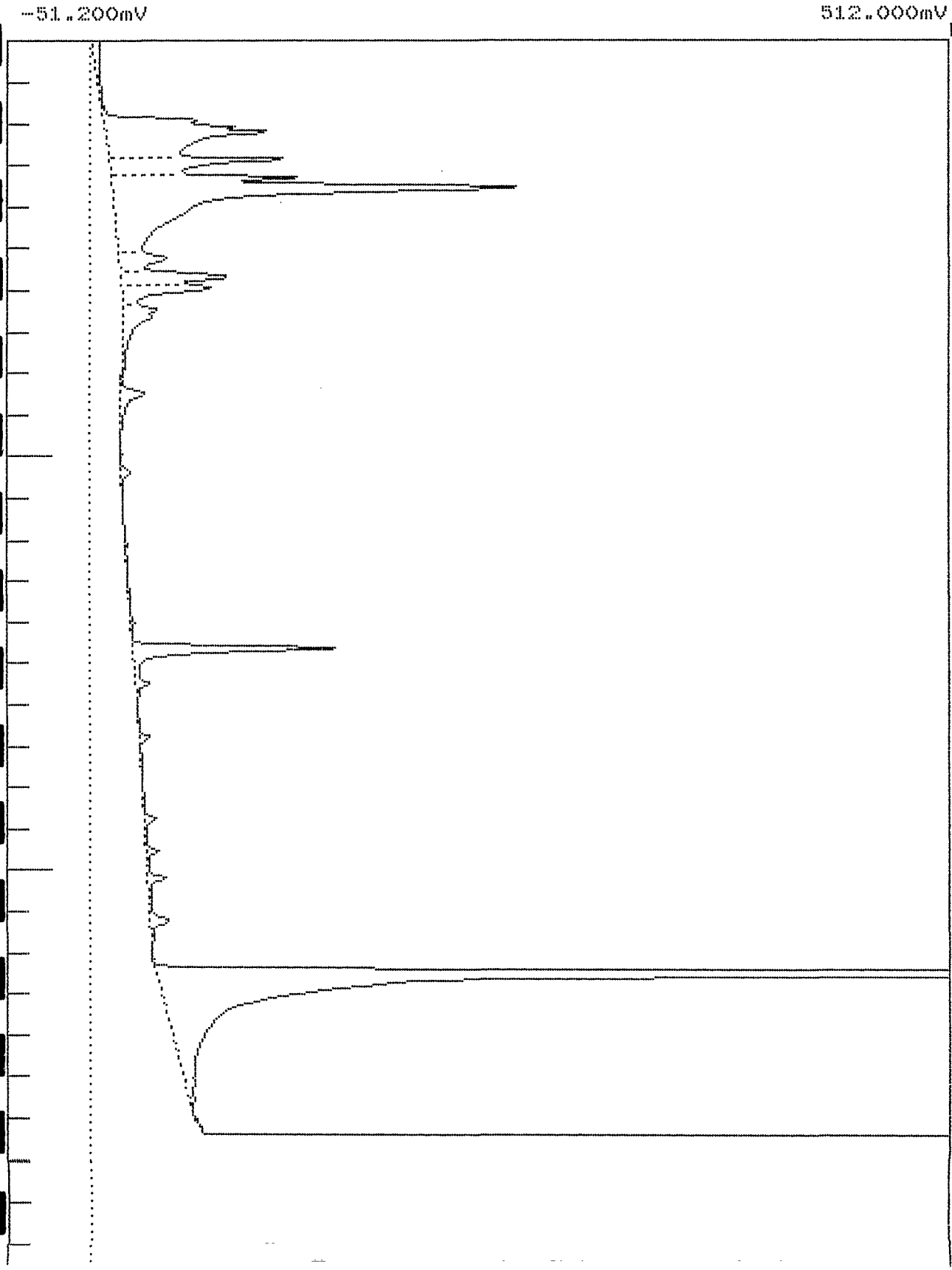
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF47.CHR ()
Operator : PEARCE

-51.200mV 512.000mV



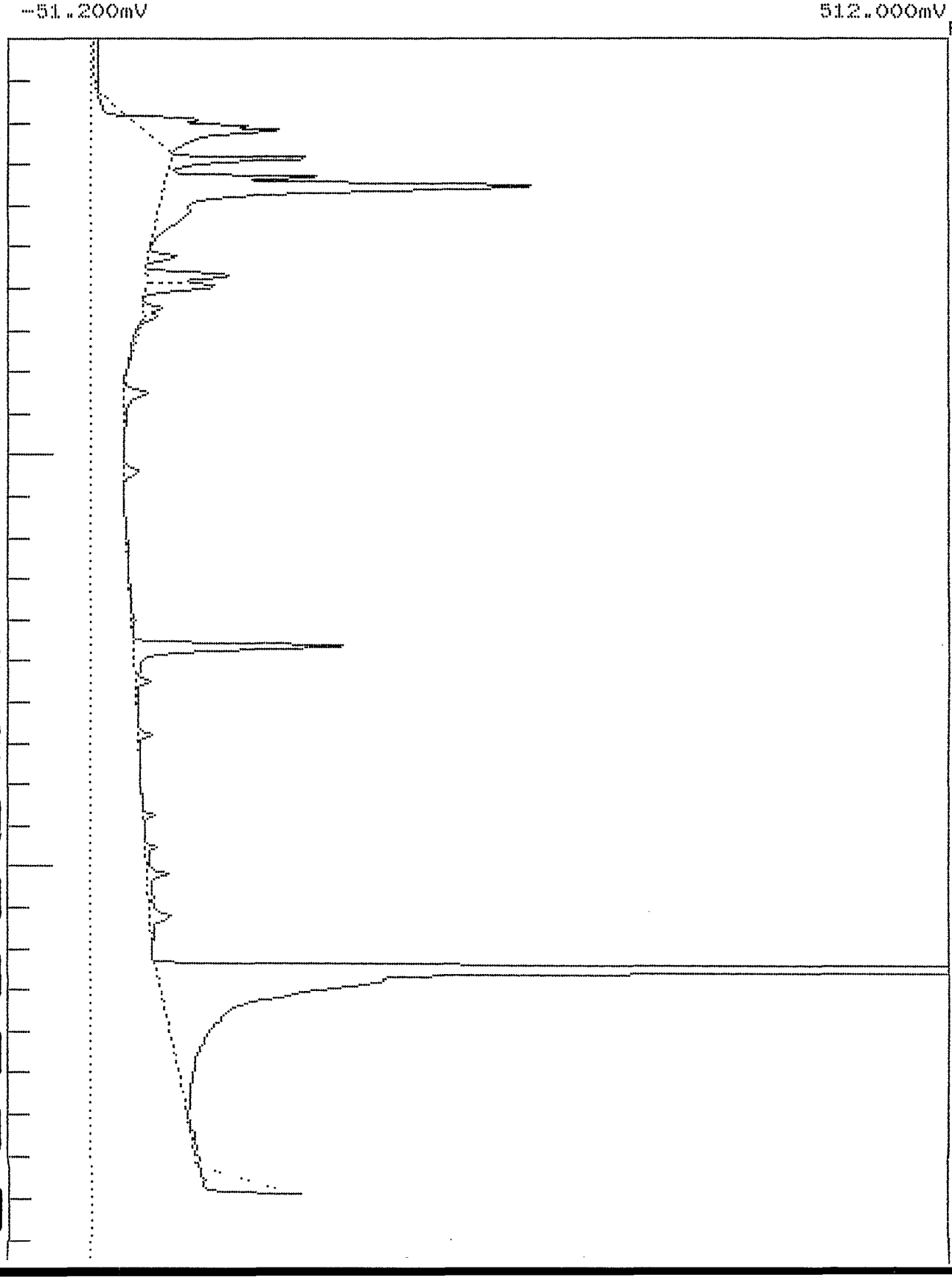
Retention	Area
0.766	922.75 M
2.166	2092.51 M
2.800	415.85 M
3.483	2418.82 M
5.166	218.48 M
5.866	463.11 M
6.383	898.65 M
7.533	305.35 M
8.350	1095.20 M
9.783	326.68 M
10.266	368.70 M
11.533	315.56 M
12.000	213.38 M
12.483	578.03 M
13.566	507.73 M
13.916	225.25 M
14.500	1755.96 M
15.350	91.75 M
16.683	763.40 M
17.100	317.47 M
18.650	74.00 M
19.433	72.97 M
20.100	125.71 M
20.716	36.97 M
21.116	1104.70 M
21.950	163.76 M
22.383	14776.49 M
25.066	955.21 M
25.516	951.33 M
26.500	3830.73 M
27.233	467.09 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF48.CHR ()
Operator : PEARCE



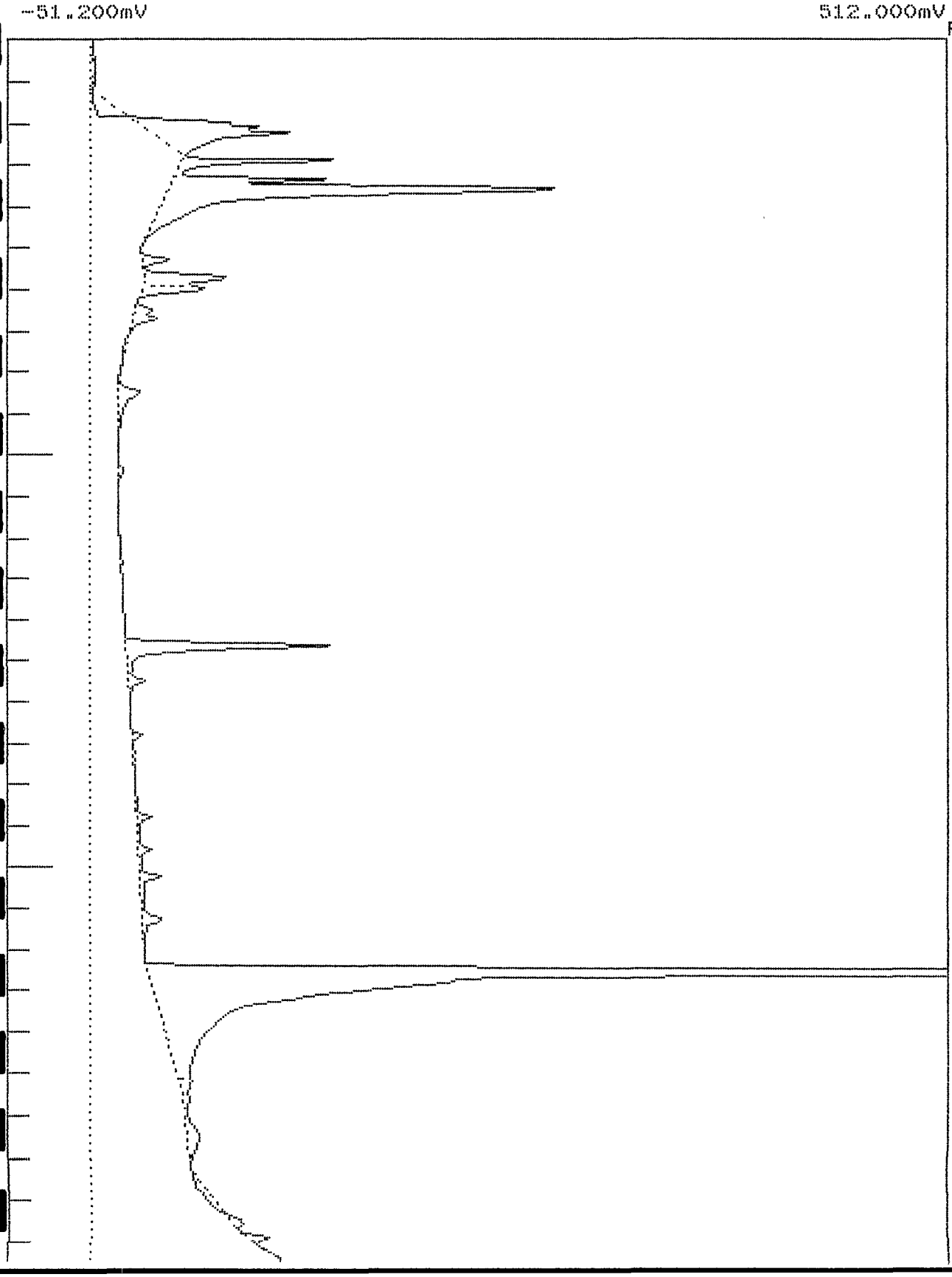
Retention	Area
2.183	3473.37
2.833	1582.53
3.516	7206.64
5.233	536.99
5.666	855.71
5.933	872.71
6.466	734.04
8.483	295.21
10.400	70.88
12.600	11.44
14.033	62.40
14.633	1449.29
15.483	113.52
16.783	75.52
17.200	14.26
18.750	139.49
19.533	93.88
20.183	175.47
21.216	197.27
22.466	14792.37
25.133	89.77
25.566	65.71

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF49.CHR ()
Operator : PEARCE



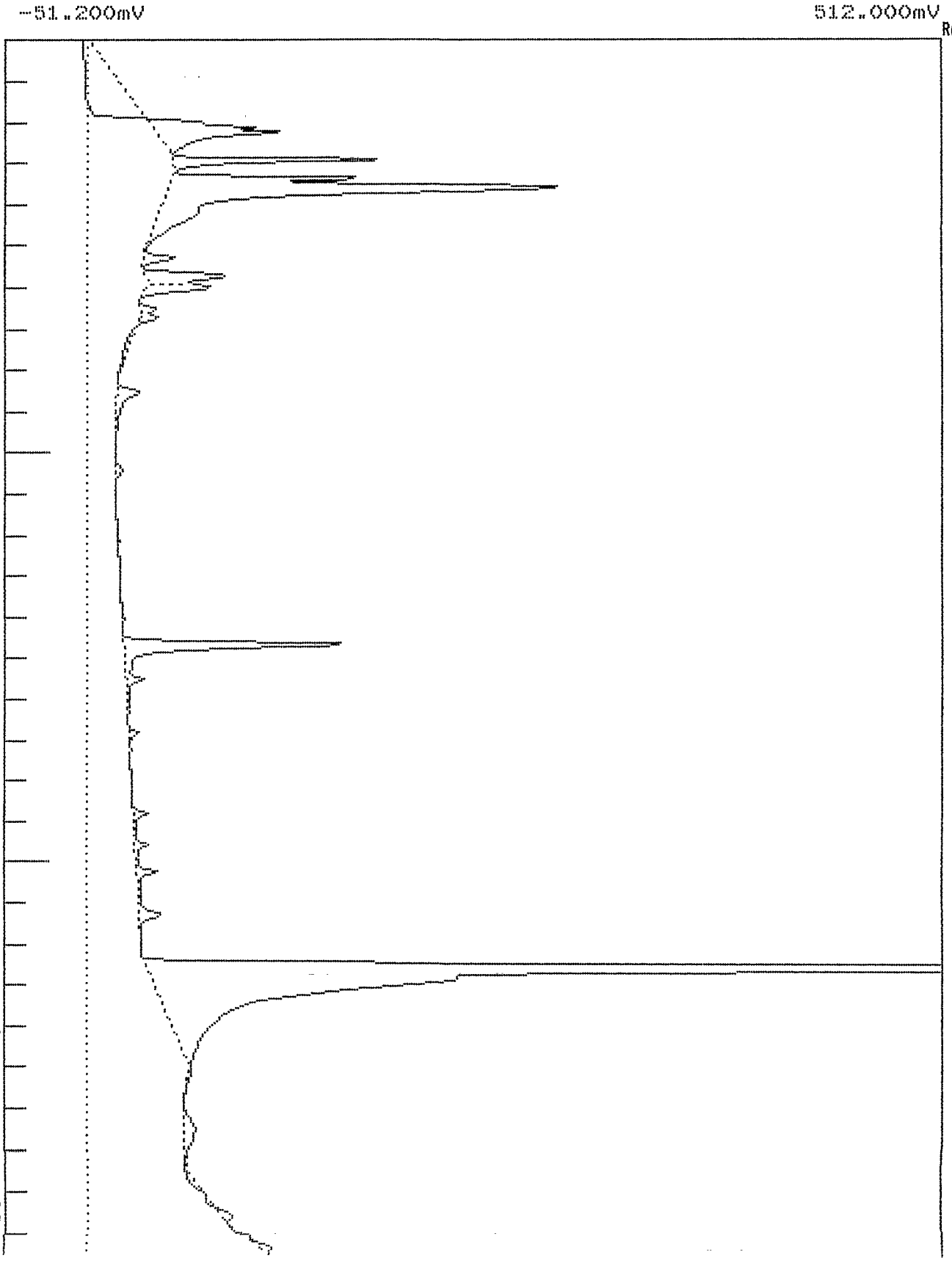
Retention	Area
1.183	187.77 M
2.183	1615.74 M
2.850	741.67 M
3.516	4752.96 M
5.233	192.84 M
5.683	566.12 M
5.950	543.16 M
6.466	102.25 M
6.666	18.72 M
8.500	276.13 M
10.400	140.14 M
12.600	15.94 M
14.033	52.30 M
14.633	1509.47 M
15.483	115.56 M
16.783	94.54 M
17.200	11.30 M
18.750	36.26 M
19.533	79.28 M
20.166	184.03 M
20.716	69.09 M
21.200	258.97 M
22.466	15979.46 M
25.583	101.26 M
26.450	38.74 M
26.783	24.44 M
27.050	22.58 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF50.CHR ()
Operator : PEARCE



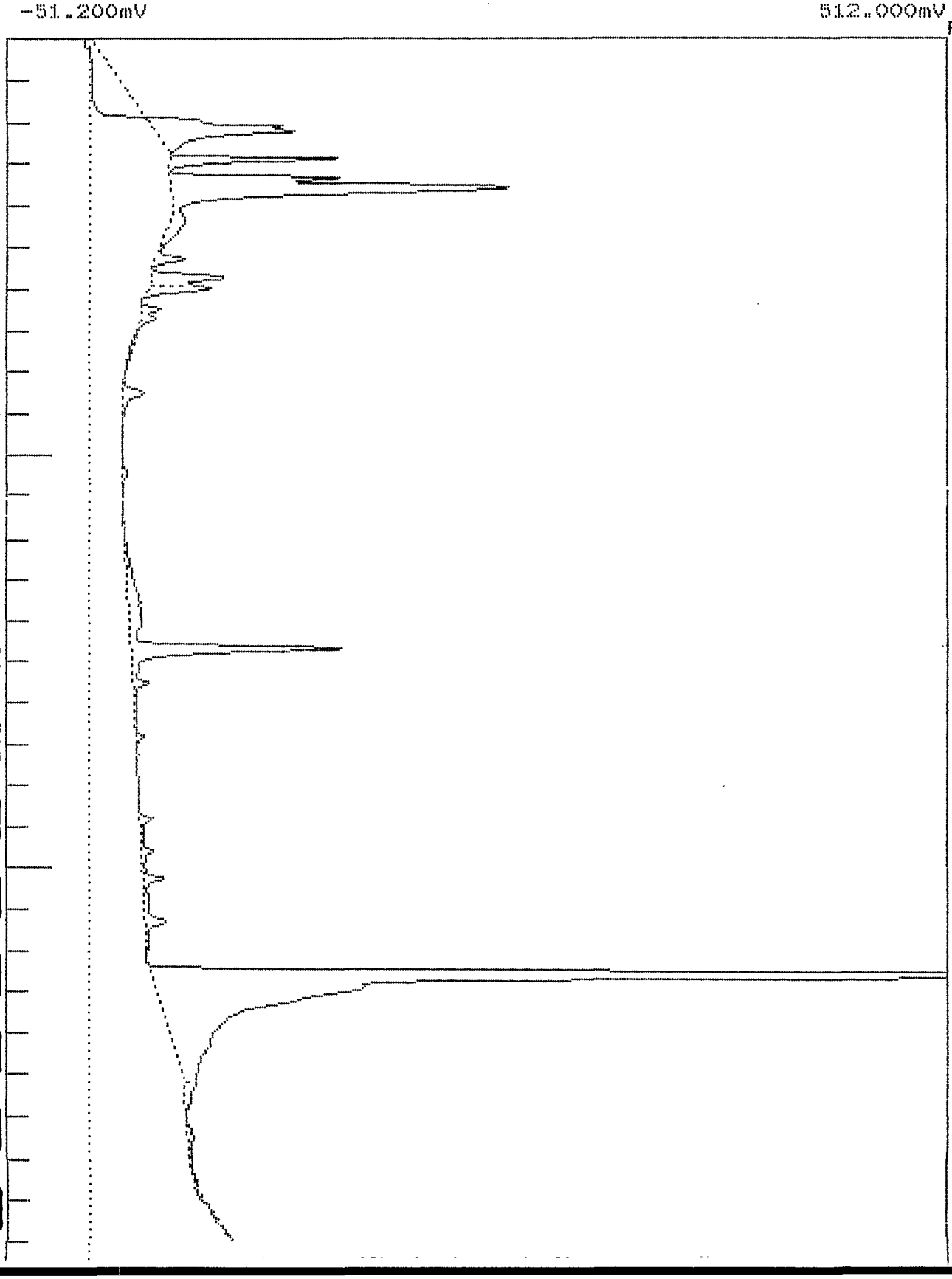
Retention	Area
0.566	25.48
1.150	22.39
2.216	1750.01 M
2.883	711.84 M
3.566	4974.09 M
5.266	170.99 M
5.700	627.79 M
5.983	465.86 M
6.700	263.26 M
8.516	322.92 M
10.400	61.47 M
14.633	1471.97 M
15.500	116.19 M
16.816	60.29 M
18.783	155.87 M
19.566	95.36 M
20.233	210.05 M
21.250	226.33 M
22.500	17463.12 M
25.166	145.17 M
25.600	61.56 M
26.483	320.60 M
28.883	119.10 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF51.CHR ()
Operator : PEARCE



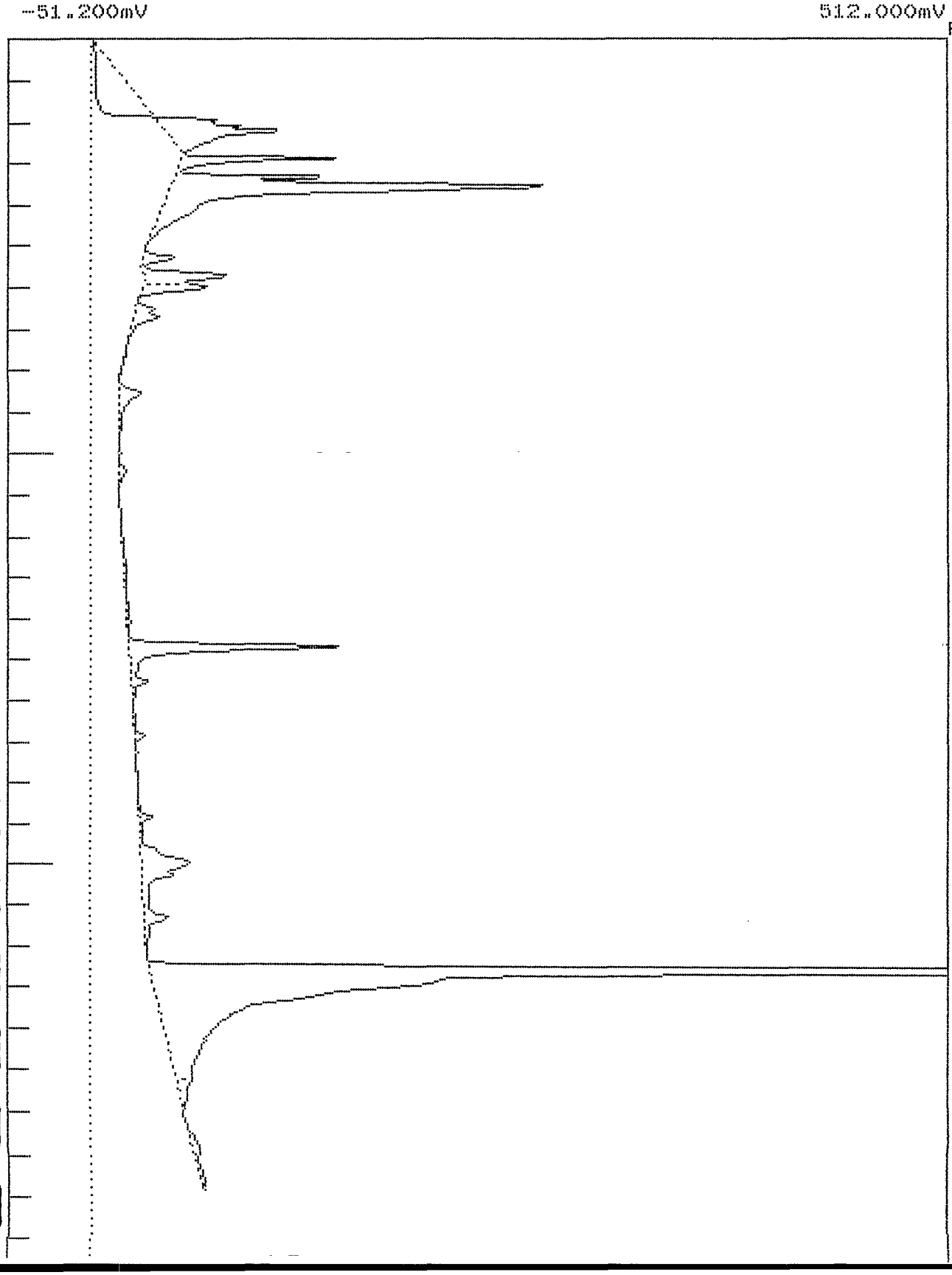
Retention	Area
2.900	959.71 M
3.566	5708.30 M
5.266	204.62 M
5.716	587.70 M
5.983	524.80 M
6.516	103.30 M
6.716	16.11 M
8.533	301.89 M
10.450	69.73 M
14.066	14.22 M
14.650	1655.53 M
15.516	156.88 M
16.816	64.96 M
18.783	133.75 M
19.583	100.12 M
20.233	150.42 M
20.650	41.48 M
21.266	185.52 M
21.733	21.04 M
22.516	18138.63 M
25.166	54.96 M
26.500	271.50 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF52.CHR ()
Operator : PEARCE



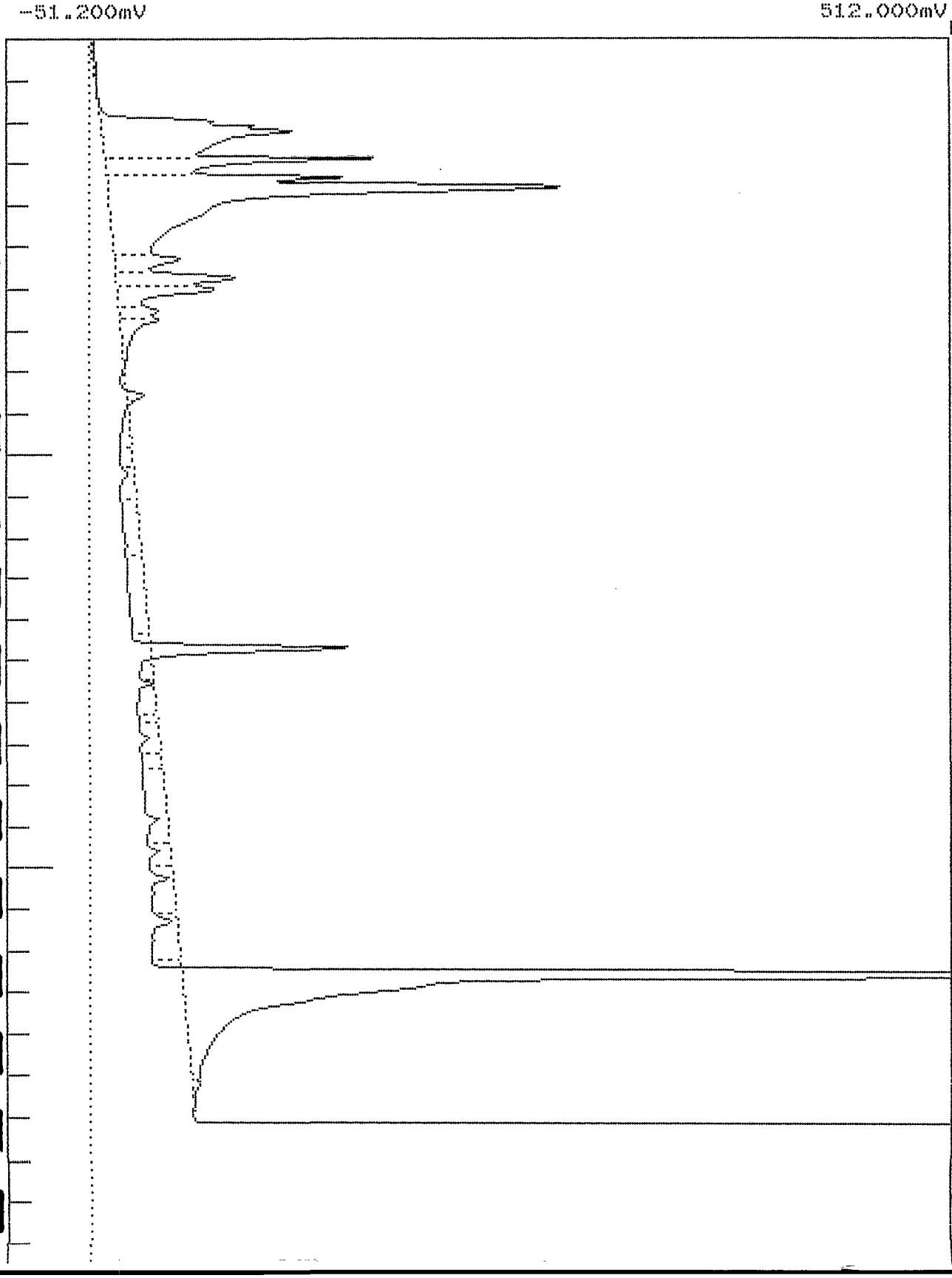
Retention	Area
2.200	57.75 M
2.883	794.76 M
3.550	4215.07 M
4.383	347.86 M
5.266	197.66 M
5.716	520.97 M
5.966	465.14 M
6.483	106.69 M
6.700	56.84 M
8.516	237.75 M
10.433	58.87 M
13.966	631.12 M
14.666	1600.88 M
15.533	167.54 M
16.833	56.47 M
18.816	102.25 M
19.600	122.20 M
20.250	166.54 M
20.833	52.35 M
21.283	214.14 M
21.783	25.27 M
22.550	16380.29 M
25.200	202.88 M
26.516	106.30 M
27.533	24.40 M

Lab name : IEES
Client : ST
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF53.CHR ()
Operator : PEARCE



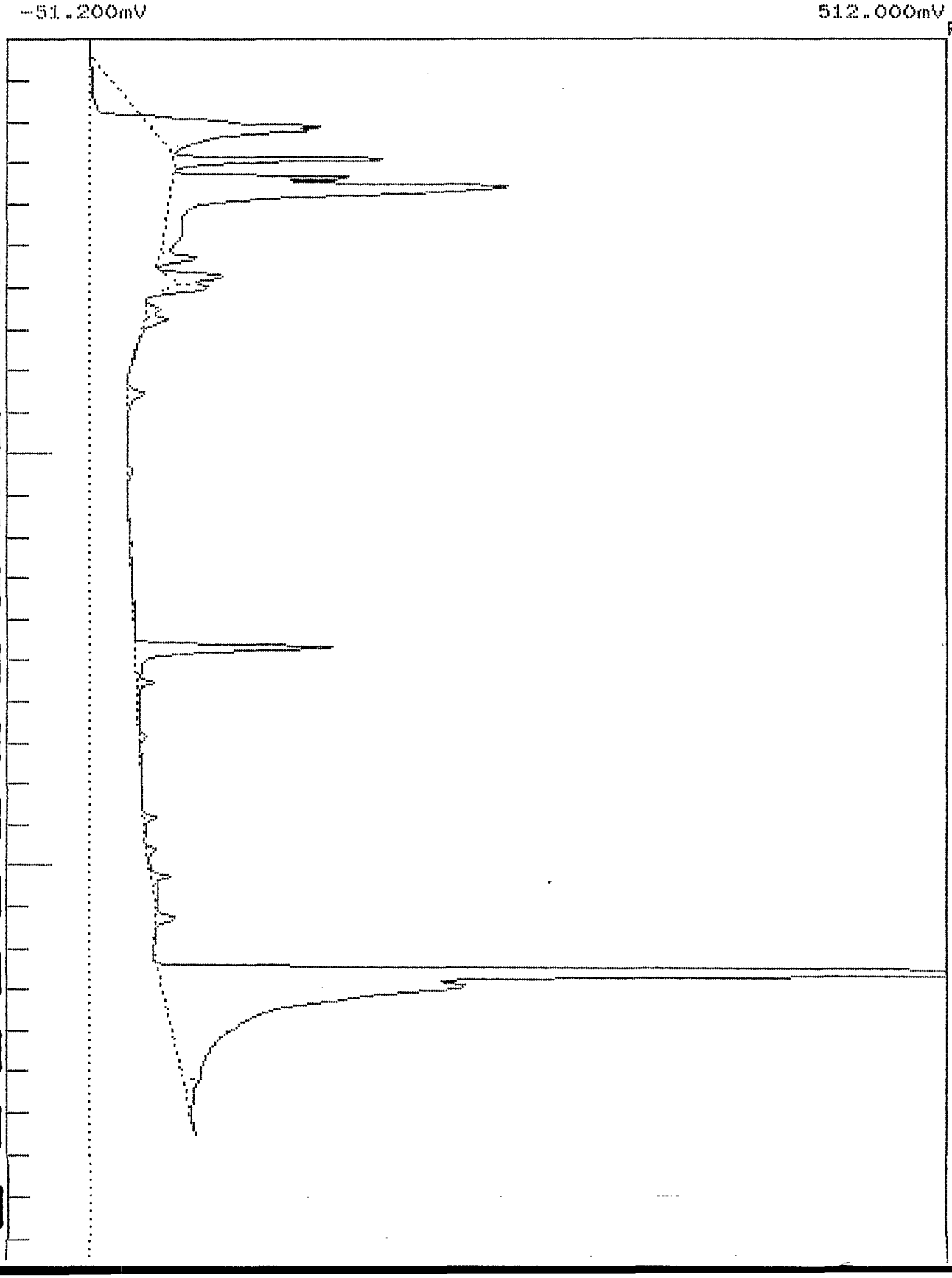
Retention	Area
2.850	739.94 M
3.533	4800.48 M
5.266	218.39 M
5.716	632.84 M
5.983	488.02 M
6.700	325.55 M
8.550	299.10 M
10.466	63.54 M
12.183	21.09 M
12.650	22.23 M
14.116	81.84 M
14.666	1583.42 M
15.533	137.35 M
16.850	59.12 M
18.816	139.82 M
19.933	1032.66 M
21.300	317.86 M
22.566	17826.87 M
25.233	179.18 M
25.683	54.10 M
26.900	131.85 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF54.CHR ()
Operator : PEARCE



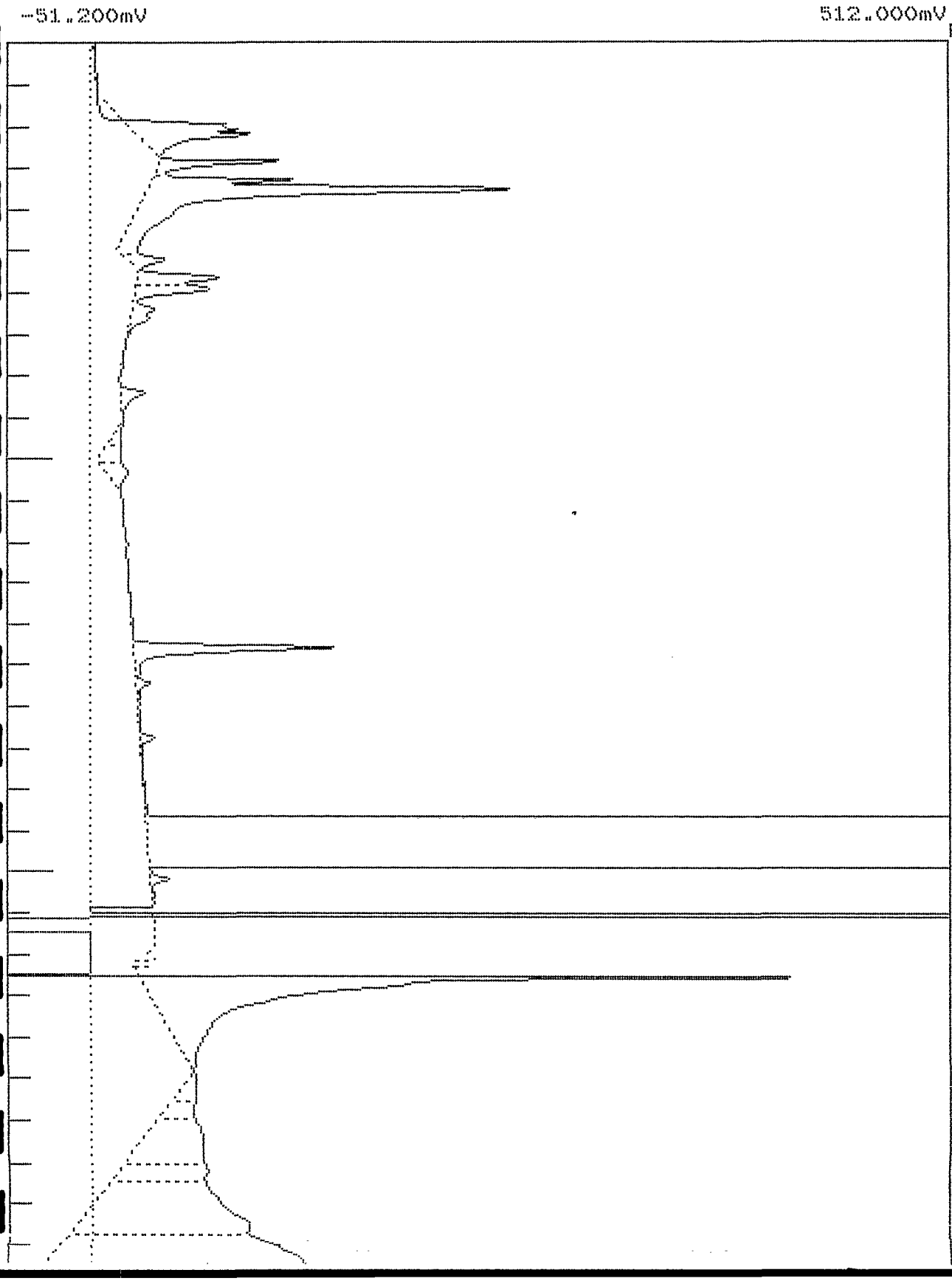
Retention	Area
2.200	4179.20
2.866	2127.25
3.550	9192.12
5.266	747.34
5.733	1018.92
6.000	1038.92
6.516	333.69
6.733	537.11
14.683	848.55
22.533	15312.61
25.183	62.72

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF55.CHR ()
Operator : PEARCE



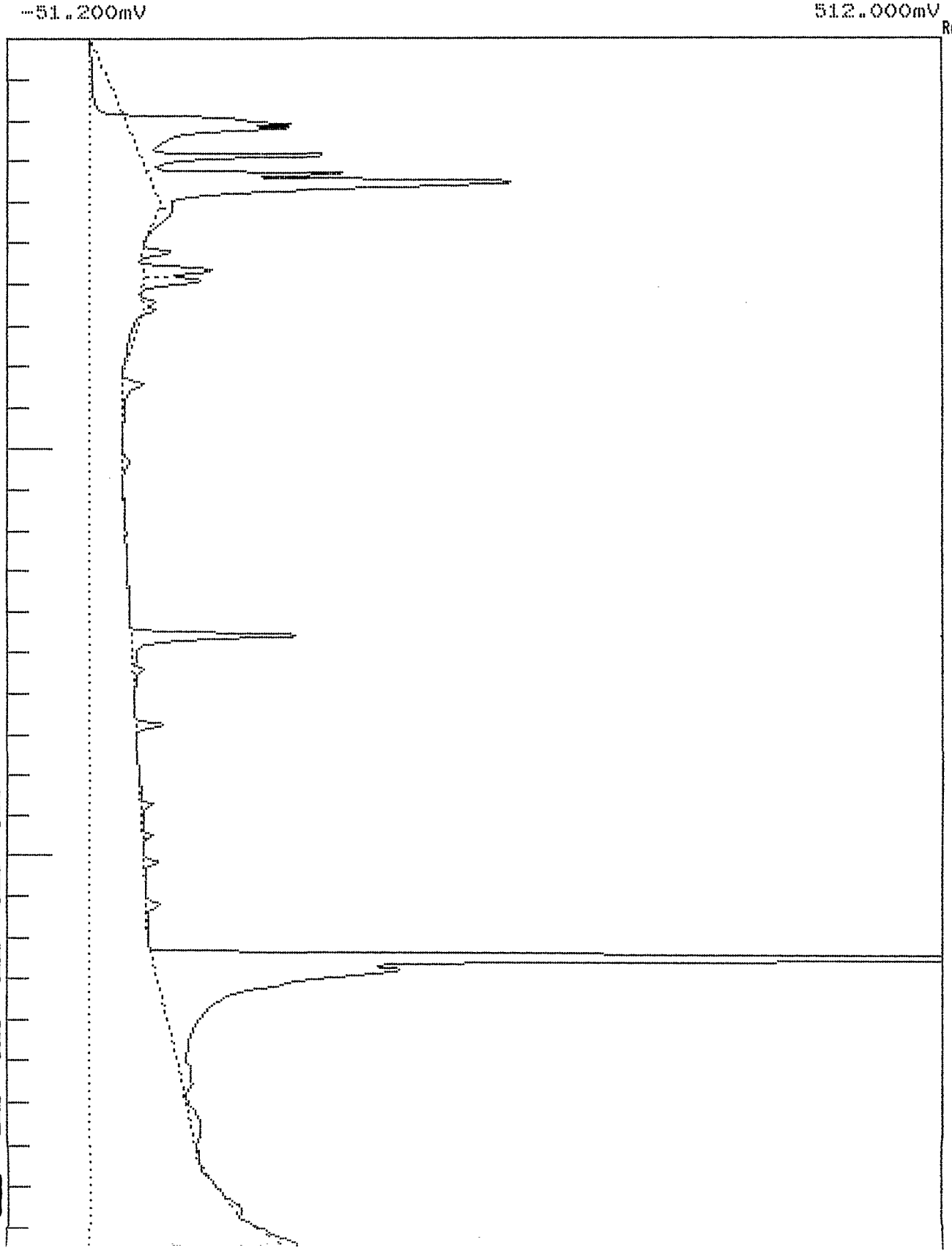
Retention	Area
2.116	1162.76 M
2.883	1015.65 M
3.566	5515.46 M
5.283	280.06 M
5.716	398.22 M
6.000	303.59 M
6.533	91.11 M
6.750	173.25 M
8.550	184.18 M
10.466	60.58 M
12.650	13.58 M
14.116	51.46 M
14.683	1488.06 M
15.550	165.73 M
16.850	49.28 M
18.333	14.39 M
18.816	103.52 M
19.600	65.87 M
20.250	134.97 M
20.683	70.19 M
20.966	14.63 M
21.266	153.51 M
21.733	10.00 M
22.533	19151.64 M
25.183	193.62 M
25.616	76.13 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF56.CHR ()
Operator : PEARCE



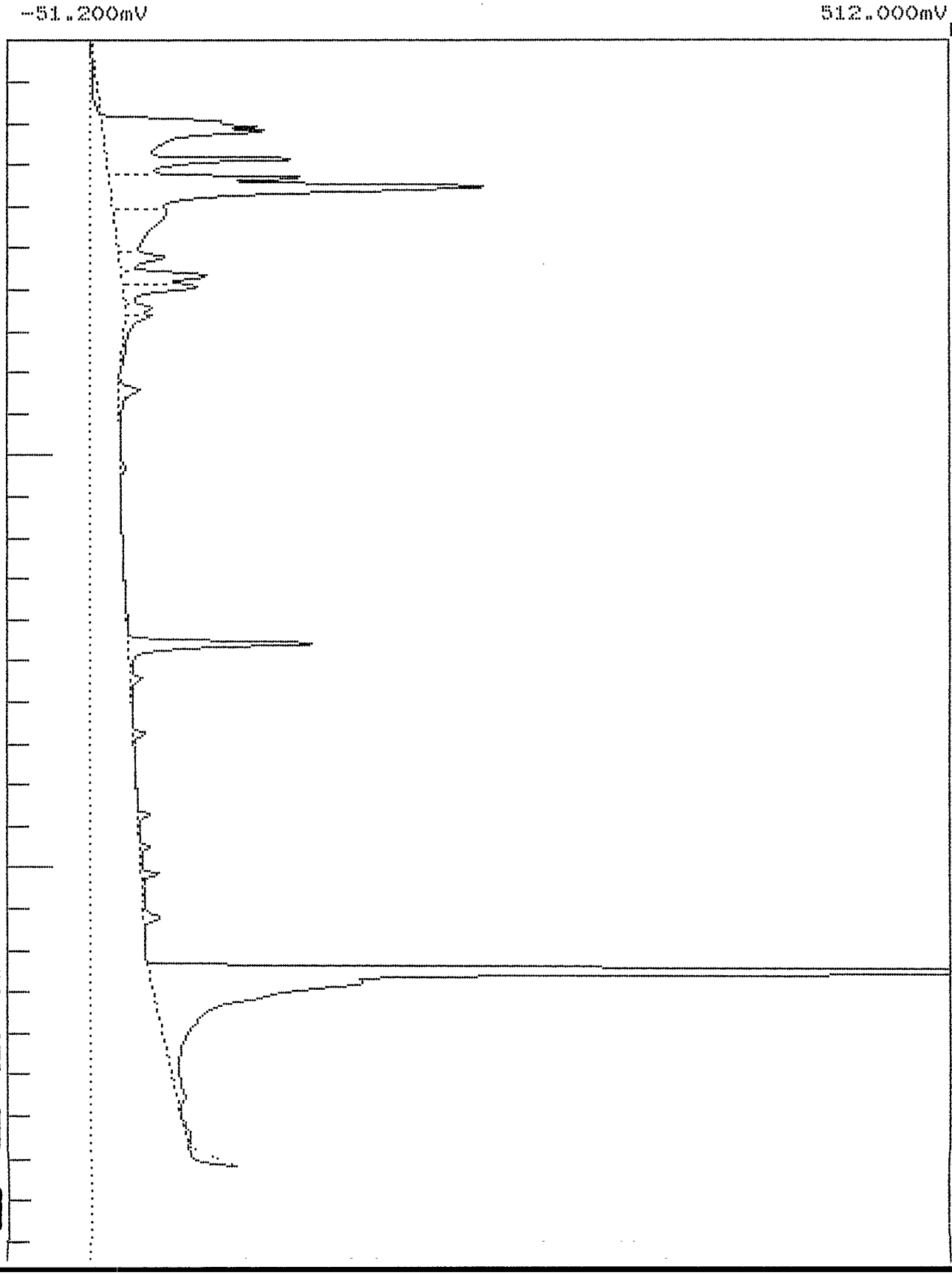
Retention	Area
0.083	23.26
2.183	1540.58 M
2.833	633.12 M
3.500	4982.83 M
5.216	352.99 M
5.633	607.13 M
5.900	638.12 M
6.416	348.84 M
8.416	248.45 M
9.133	119.87 M
9.900	274.14 M
10.333	409.94 M
14.000	20.41 M
14.583	1447.37 M
15.450	122.86 M
16.750	101.80 M
17.183	11.34 M
18.733	146.81 M
19.516	72.01 M
20.166	116.05 M
20.566	30.13 M
21.200	148.99 M
22.116	94.73 M
22.433	16208.40 M
25.083	254.18 M
25.550	412.43 M
26.416	2245.62 M
27.150	1236.81 M
28.550	6384.46 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : c3sgpf57.chr ()
Operator : PEARCE



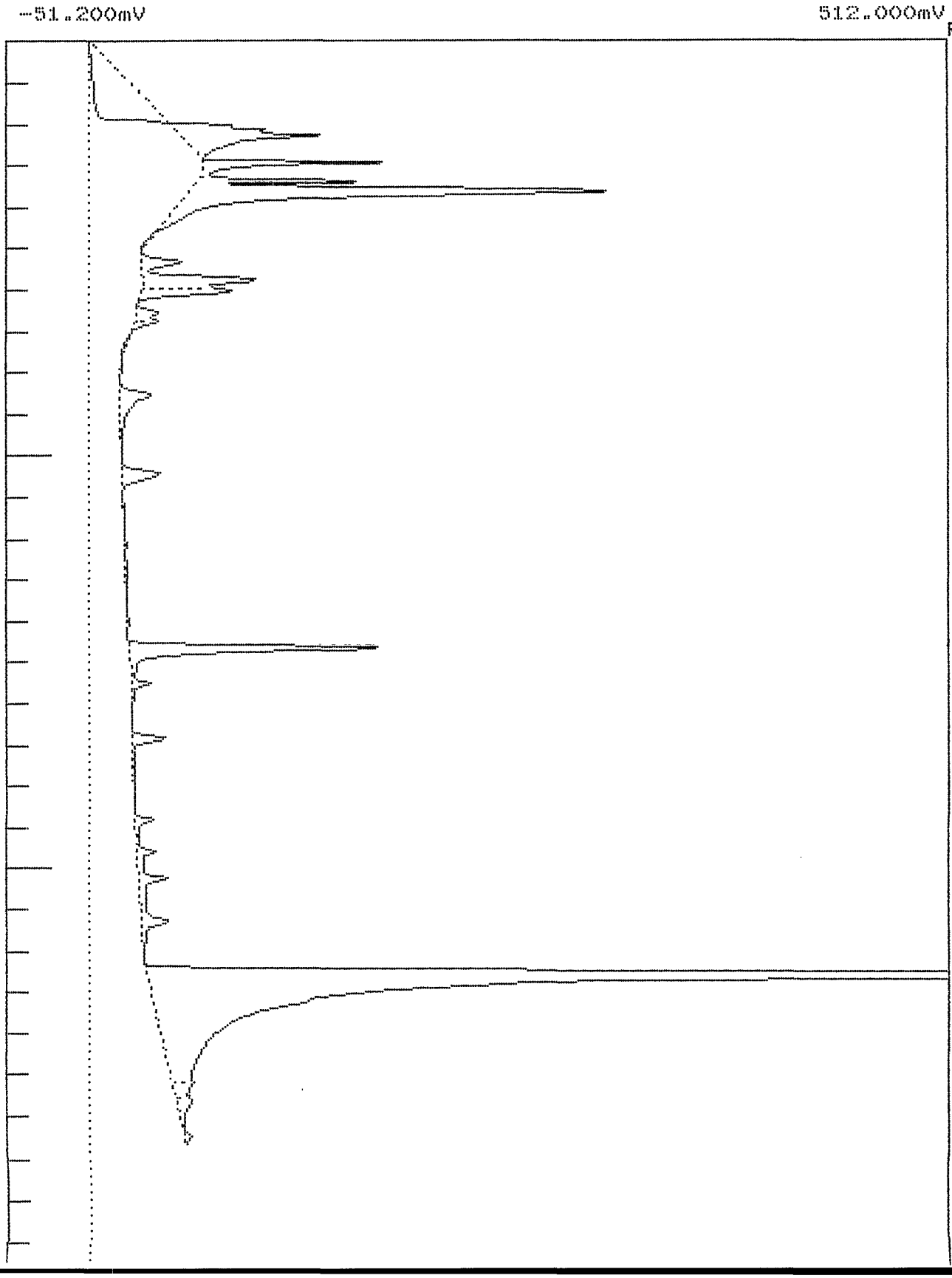
Retention	Area
2.850	2548.93 M
3.500	4554.72 M
4.183	231.14 M
5.200	186.52 M
5.650	472.92 M
5.916	438.28 M
6.450	63.99 M
8.433	212.17 M
9.166	22.22 M
10.333	69.09 M
13.983	15.97 M
14.566	1223.79 M
15.416	100.79 M
16.750	169.88 M
18.716	133.37 M
19.500	63.39 M
20.166	96.02 M
20.550	16.50 M
21.200	110.44 M
21.716	19.81 M
22.450	14916.26 M
25.566	271.34 M
26.466	177.84 M
26.700	69.75 M
27.266	21.30 M
28.566	58.60 M
29.416	173.85 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF58.CHR ()
Operator : PEARCE



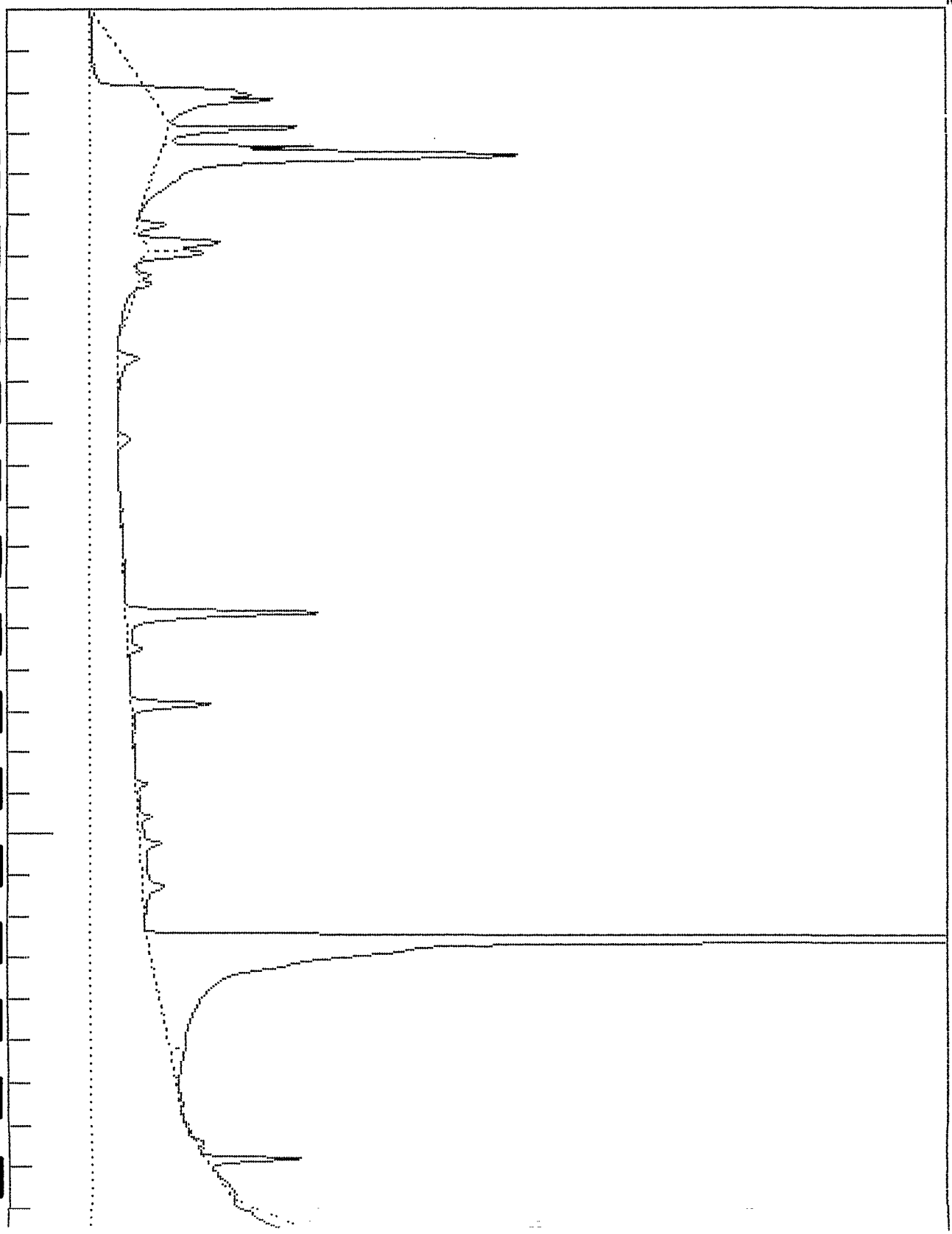
Retention	Area
2.850	4146.84 M
3.500	4922.93 M
4.166	1384.35 M
5.200	453.19 M
5.650	698.45 M
5.916	671.21 M
6.433	204.89 M
6.633	316.46 M
8.433	221.78 M
9.166	24.40 M
10.333	61.16 M
13.983	14.39 M
14.566	1297.06 M
15.416	102.02 M
16.733	70.40 M
18.716	109.58 M
19.500	84.71 M
20.150	118.58 M
20.583	21.32 M
21.200	139.46 M
21.733	19.48 M
22.450	14384.07 M
25.566	260.16 M
26.416	64.25 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF59.CHR ()
Operator : PEARCE



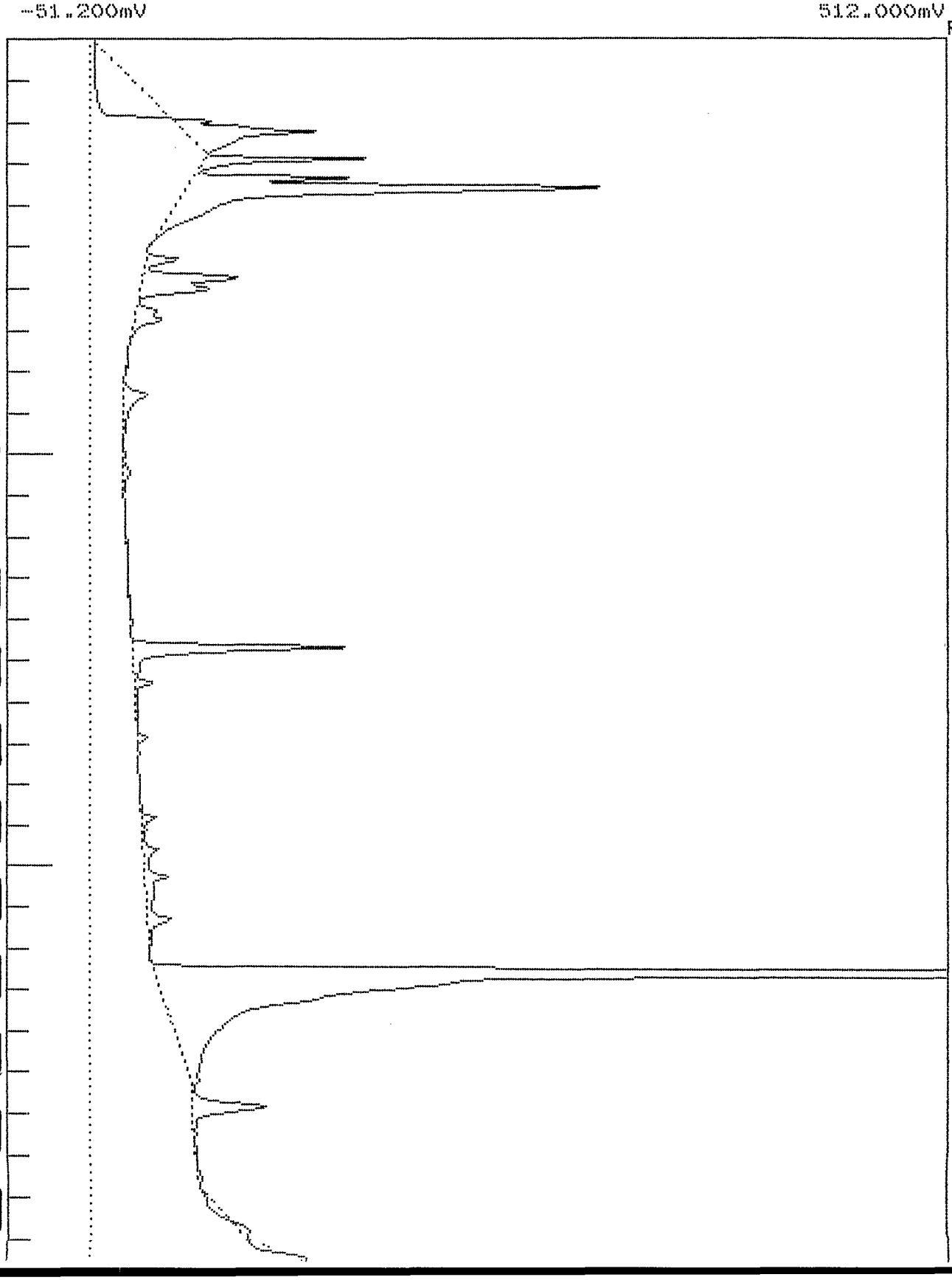
Retention	Area
2.916	757.33 M
3.600	4589.91 M
5.316	299.53 M
5.750	884.73 M
6.016	714.83 M
6.550	146.04 M
6.750	121.20 M
7.700	18.98 M
8.533	462.36 M
9.983	10.04 M
10.416	371.33 M
12.150	16.84 M
12.616	17.03 M
14.066	33.48 M
14.650	1812.43 M
15.500	124.88 M
16.816	221.79 M
17.233	19.19 M
18.783	165.09 M
19.566	131.81 M
20.216	366.11 M
21.266	324.63 M
22.516	20846.05 M
25.166	241.72 M
25.616	221.95 M
26.466	25.65 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF60.CHR ()
Operator : PEARCE



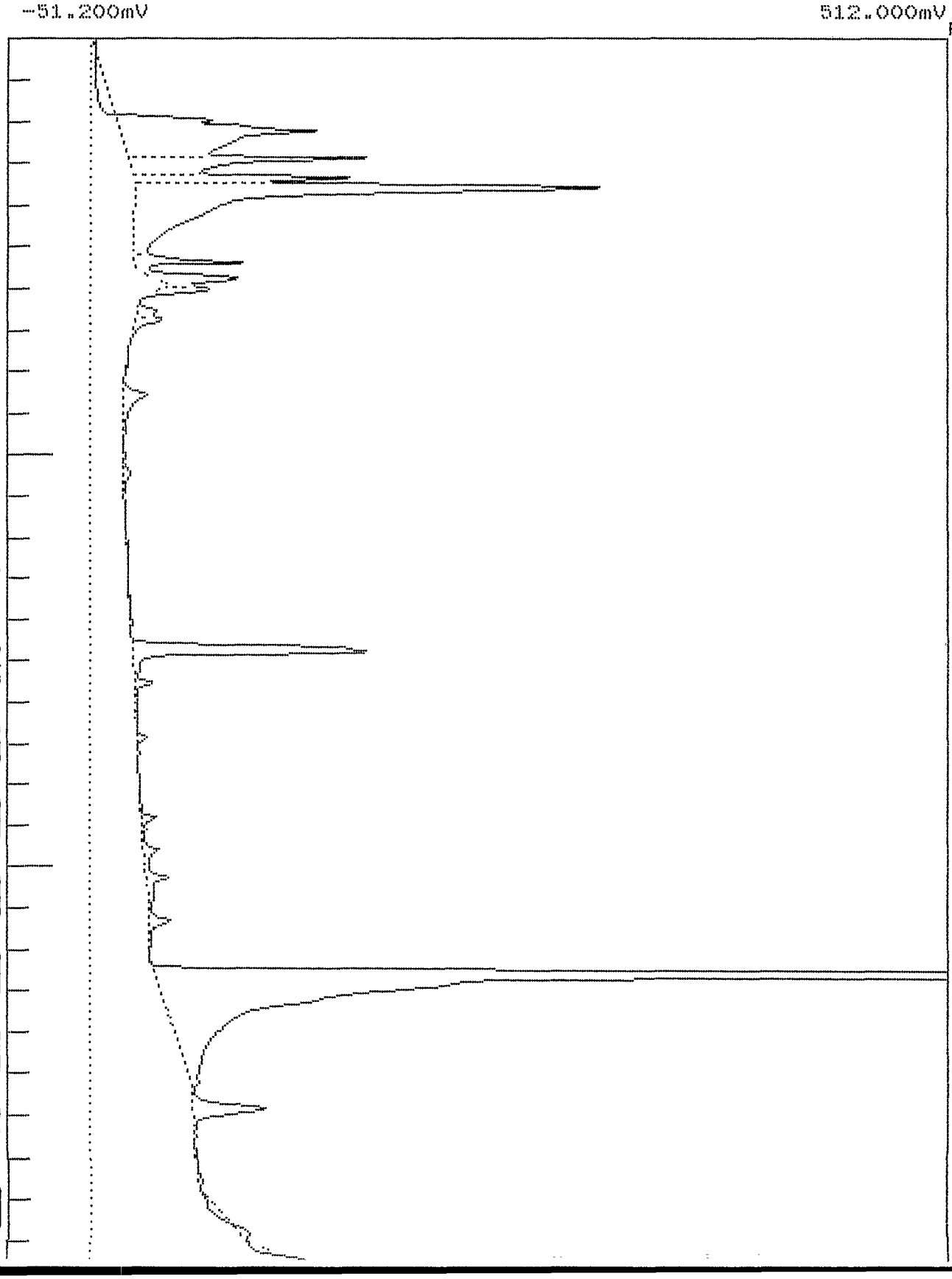
Retention	Area
2.183	145.36 M
2.850	677.95 M
3.516	4666.70 M
5.216	206.81 M
5.650	555.07 M
5.916	433.83 M
6.450	65.91 M
8.466	298.94 M
10.366	125.16 M
12.100	12.75 M
12.566	13.39 M
14.016	45.43 M
14.616	1432.77 M
15.483	108.23 M
16.800	576.54 M
18.783	67.82 M
19.116	18.51 M
19.566	105.41 M
20.216	225.10 M
20.633	118.70 M
21.250	324.67 M
22.516	16663.47 M
25.183	293.92 M
26.500	33.38 M
27.783	487.10 M
28.650	89.20 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF61.CHR ()
Operator : PEARCE



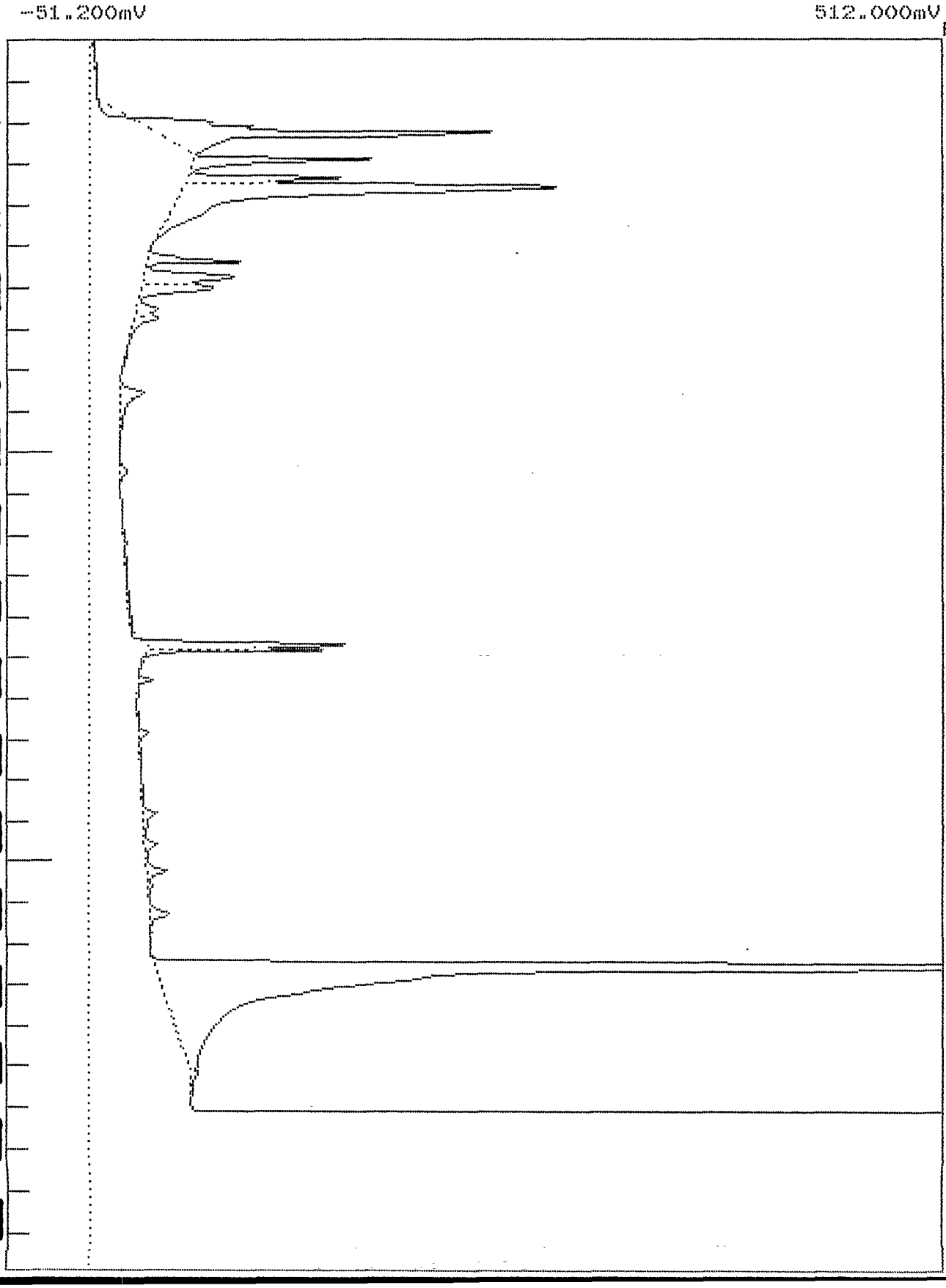
Retention	Area
2.883	705.01 M
3.566	5025.38 M
5.283	215.15 M
5.733	1284.90 M
6.750	375.94 M
7.716	17.89 M
8.566	326.96 M
10.466	69.19 M
12.650	13.98 M
14.666	1479.77 M
15.533	143.84 M
16.850	68.19 M
18.816	143.83 M
19.600	156.30 M
20.266	387.95 M
21.283	260.57 M
22.550	17398.94 M
25.200	49.33 M
25.833	771.41 M
26.516	15.80 M
26.900	27.07 M
27.533	34.52 M

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Components : c502e.cpt
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF62.CHR ()
Operator : PEARCE



Retention	Area
0.083	11.32
2.216	3210.21
2.883	1792.38
3.566	6546.39
5.333	605.16
5.733	647.00
6.000	324.48
6.550	131.51
6.750	213.11
7.716	17.89
8.566	326.96
10.466	69.19
12.650	12.13
14.733	2011.37
15.533	127.76
16.850	67.09
18.816	143.83
19.600	156.30
20.266	205.06
20.550	108.83
21.283	225.45
22.550	17398.94
25.200	49.33
25.833	723.09
26.516	13.20
26.900	27.07
27.533	34.52

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : C3SGPF63.CHR ()
Operator : PEARCE



Retention	Area
0.116	17.70
1.383	12.00
2.216	2629.87 M
2.866	812.71 M
3.550	4361.78 M
5.333	410.84 M
5.733	676.22 M
6.000	636.41 M
6.516	149.68 M
6.733	214.89 M
7.666	11.87 M
8.566	319.93
10.466	63.38
12.183	21.63
12.683	21.49
14.116	75.40
14.683	941.64
14.783	572.71
15.550	79.78
16.850	60.78
17.283	12.63
18.816	180.47
19.583	113.71
20.233	173.37
20.600	33.41
21.283	174.98
21.733	11.54
22.533	16848.52
25.183	64.06
25.633	10.58

APPENDIX D
PRE-SURVEY CALIBRATIONS AND DAILY QC CHECKS

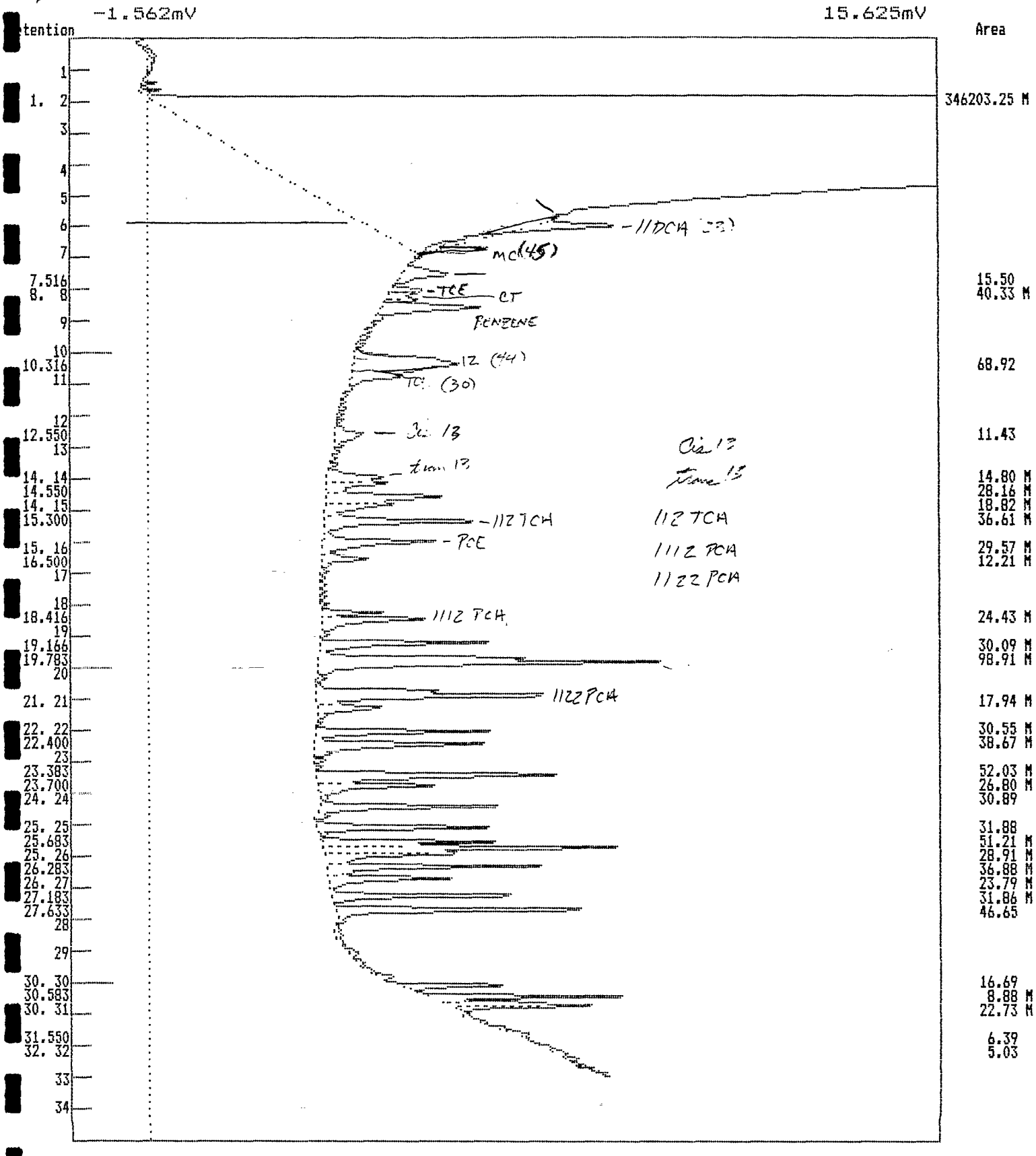
INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Avenue
Colton, California 92324
(909) 872-0501 FAX (909) 824-1442

	For 3 point initial calibration						For 3 point initial calibration						For 3 point initial calibration	
Compound	1st Conc ug/L or Mass (ng) injected	2nd Conc ug/L or Mass (ng) injected	3rd Conc ug/L or Mass (ng) injected	1st Area	2nd Area	3rd Area	1st RF	2nd RF	3rd RF	Average RF	Std Dev.	%RSD	Pass	
Dichlorodifluoromethane	10	15	25	7.55	9.1	15.2	0.8	0.6	0.6	0.7	0	0	Pass	
Chloromethane	10	15	25	7.1	13.7	18	0.7	0.9	0.7	0.8	0	0	Pass	
Vinyl chloride	3	10	30	5.79	15.8	30	1.9	1.6	1	1.5	0	0	Pass	
Bromomethane							ERR	ERR	ERR	ERR	ERR	ERR		ERR
Chloroethane	10	15	25	7.2	7.8	9.34	0.7	0.5	0.4	0.5	0	0	Pass	
Trichlorofluoromethane	3	10	30	1.9			0.6	0	0	0.2	0	0	Pass	
1,1-Dichloroethene	3	10	30	139	574	1573	46.3	57.4	52.4	52	5	9.6	Pass	
Dichloromethane	3	10	30	1.7	6.1	23	0.6	0.6	0.8	0.7	0	0	Pass	
trans-1,2-Dichloroethene	3	10	30	372	1251	3673	124	125.1	122.4	123.8	1	0.8	Pass	
1,1-Dichloroethane	3	10	30	3	8.77	23	1	0.9	0.8	0.9	0	0	Pass	
cis-1,2-Dichloroethene	3	10	30	1	4	11.4	0.3	0.4	0.4	0.4	0	0	Pass	
Chloroform	3	10	30	2.58	7.26	15.5	0.9	0.7	0.5	0.7	0	0	Pass	
1,1,1-Trichloroethane	3	10	30	1.3	6.1	15.5	0.4	0.6	0.5	0.5	0	0	Pass	
Carbon tetrachloride	3	10	30	0.55	1.24	4	0.2	0.1	0.1	0.1	0	0	Pass	
1,2-Dichloroethane	3	10	30	1	3.75	11.2	0.3	0.4	0.4	0.4	0	0	Pass	
Trichloroethene	3	10	30	274	999.4	2426	91.3	99.9	80.9	90.7	9	9.9	Pass	
1,2-Dichloropropane	3	10	30	5.64	17	44	1.9	1.7	1.5	1.7	0	0	Pass	
Dibromomethane							ERR	ERR	ERR	ERR	ERR	ERR		ERR
Bromodichloromethane							ERR	ERR	ERR	ERR	ERR	ERR		ERR
cis-1,3-Dichloropropane	3	10	30	1.32	4	11.5	0.4	0.4	0.4	0.4	0	0	Pass	
trans-1,3-Dichloropropane	3	10	30	1.57	4.36	13	0.5	0.4	0.4	0.4	0	0	Pass	
1,1,2-Trichloroethane	3	10	30	6.3	12.1	34.16	2.1	1.2	1.1	1.5	0	0	Pass	
Tetrachloroethene	3	10	30	212	726.6	1521.7	70.7	72.7	50.7	64.7	12	18.5	Pass	
Dibromochloromethane							ERR	ERR	ERR	ERR	ERR	ERR		ERR
1,1,1,2-Tetrachloroethane	3	10	30	2.62	8.59	26.11	0.9	0.9	0.9	0.9	0	0	Pass	
Bromoform							ERR	ERR	ERR	ERR	ERR	ERR		ERR
1,1,2,2-Tetrachloroethane	3	10	30	7	23.2	62.67	2.3	2.3	2.1	2.2	0	0	Pass	
Bromobenzene							ERR	ERR	ERR	ERR	ERR	ERR		ERR
Trichloropropane							ERR	ERR	ERR	ERR	ERR	ERR		ERR
Benzene	3	10	30	500	1489.8	3500	166.7	149	116.7	144.1	25	17.3	Pass	
Chlorobenzene	3	10	30	556	1470	2823	185.3	147	94.1	142.1	45	31.6		
1,2-Dichlorobenzene							ERR	ERR	ERR	ERR	ERR	ERR		ERR
1,3-Dichlorobenzene							ERR	ERR	ERR	ERR	ERR	ERR		ERR
1,4-Dichlorobenzene							ERR	ERR	ERR	ERR	ERR	ERR		ERR
Ethylbenzene	3	10	30	360.5	1211	3326.9	120.2	121.1	110.9	117.4	5	4.2	Pass	

Compound	Daily 1 point Calibration: Conc ug/L or Mass (ng) injected	Area	RF	% Diff.	Pass	Q.C. Check Samples Before analysis of samples: True Value Conc ug/L or Mass (ng)	Area	RF	% Diff.	Pass	Q.C. Check Samples End of Day: True Value Conc ug/L or Mass (ng)	Area	RF	% Diff.	Pass
Dichlorodifluoromethane	15	9.1	0.6	-14.2	Pass	10		0	-99.9				ERR	ERR	ERR
Chloromethane	15	13.7	0.9	12.5	Pass	10		0	-99.9				ERR	ERR	ERR
Vinyl chloride	10	15.8	1.6	6.7	Pass	10	17.3	1.7	13.3	Pass	10	16	1.6	6.7	Pass
Bromomethane	10		0	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
Chloroethane	15	7.8	0.5	0	Pass	10		0	-99.9				ERR	ERR	ERR
Trichlorofluoromethane		7.8	ERR	ERR	ERR	10		0	-99.9				ERR	ERR	ERR
1,1-Dichloroethene	10	574	57.4	10.4	Pass	10	424	42.4	-18.4	Pass	10		0	-99.9	
Dichloromethane	10	6.1	0.6	-14.2	Pass			ERR	ERR	ERR			ERR	ERR	ERR
trans-1,2-Dichloroethene	10	1251	125.1	1.1	Pass	10	1283	128.3	3.6	Pass	10	1000	100	-19.1	Pass
1,1-Dichloroethane	10	8.77	0.9	0	Pass	10		0	-99.9				ERR	ERR	ERR
cis-1,2-Dichloroethene	10	4	0.4	0	Pass	10	0	0	-99.9				ERR	ERR	ERR
Chloroform	10	7.26	0.7	0	Pass	10		0	-99.9				ERR	ERR	ERR
1,1,1-Trichloroethane	10	6.1	0.6	20		10	4.1	0.4	-19.9	Pass	10	3.6	0.4	-19.9	Pass
Carbon tetrachloride	10	1.24	0.1	0	Pass	10		0	-99.9				ERR	ERR	ERR
1,2-Dichloroethane	10	3.75	0.4	0	Pass	10		0	-99.9				ERR	ERR	ERR
Trichloroethene	10	999.4	99.9	10.1	Pass	10	874	87.4	-3.5	Pass	10	1005	100.5	10.8	Pass
1,2-Dichloropropane	10	17	1.7	0	Pass	10		0	-99.9				ERR	ERR	ERR
Dibromomethane	10		0	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
Bromodichloromethane			ERR	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
cis-1,3-Dichloropropane	10	4	0.4	0	Pass	10		0	-99.9				ERR	ERR	ERR
trans-1,3-Dichloropropane	10	4.36	0.4	0	Pass	10		0	-99.9				ERR	ERR	ERR
1,1,2-Trichloroethane	10	12.1	1.2	-19.9		10		0	-99.9				ERR	ERR	ERR
Tetrachloroethene	10	726.6	72.7	12.4	Pass	10	780	78	20.6		10	721	72.1	11.4	Pass
Dibromochloromethane	10		0	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
1,1,1,2-Tetrachloroethane	10	8.59	0.9	0	Pass	10		0	-99.9				ERR	ERR	ERR
Bromoform	10		0	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
1,1,2,2-Tetrachloroethane	10	23.2	2.3	4.5	Pass	10		0	-99.9				ERR	ERR	ERR
Bromobenzene	10		0	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
Trichloropropane	10		0	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
Benzene	10	1489.8	149	3.4	Pass	10	1633	163.3	13.3	Pass	10	1476	147.6	2.4	Pass
Chlorobenzene	10	1470	147	3.4	Pass	10		0	-99.9				ERR	ERR	ERR
1,2-Dichlorobenzene			ERR	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
1,3-Dichlorobenzene			ERR	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
1,4-Dichlorobenzene			ERR	ERR	ERR			ERR	ERR	ERR			ERR	ERR	ERR
Ethylbenzene	10	1211	121.1	3.2	Pass	10	1209	120.9	3	Pass	10	1203	120.3	2.5	Pass

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3CAL4C.CHR (C:\PEAK3\CC3)
Sample : 30 NG VOLATILES MIX

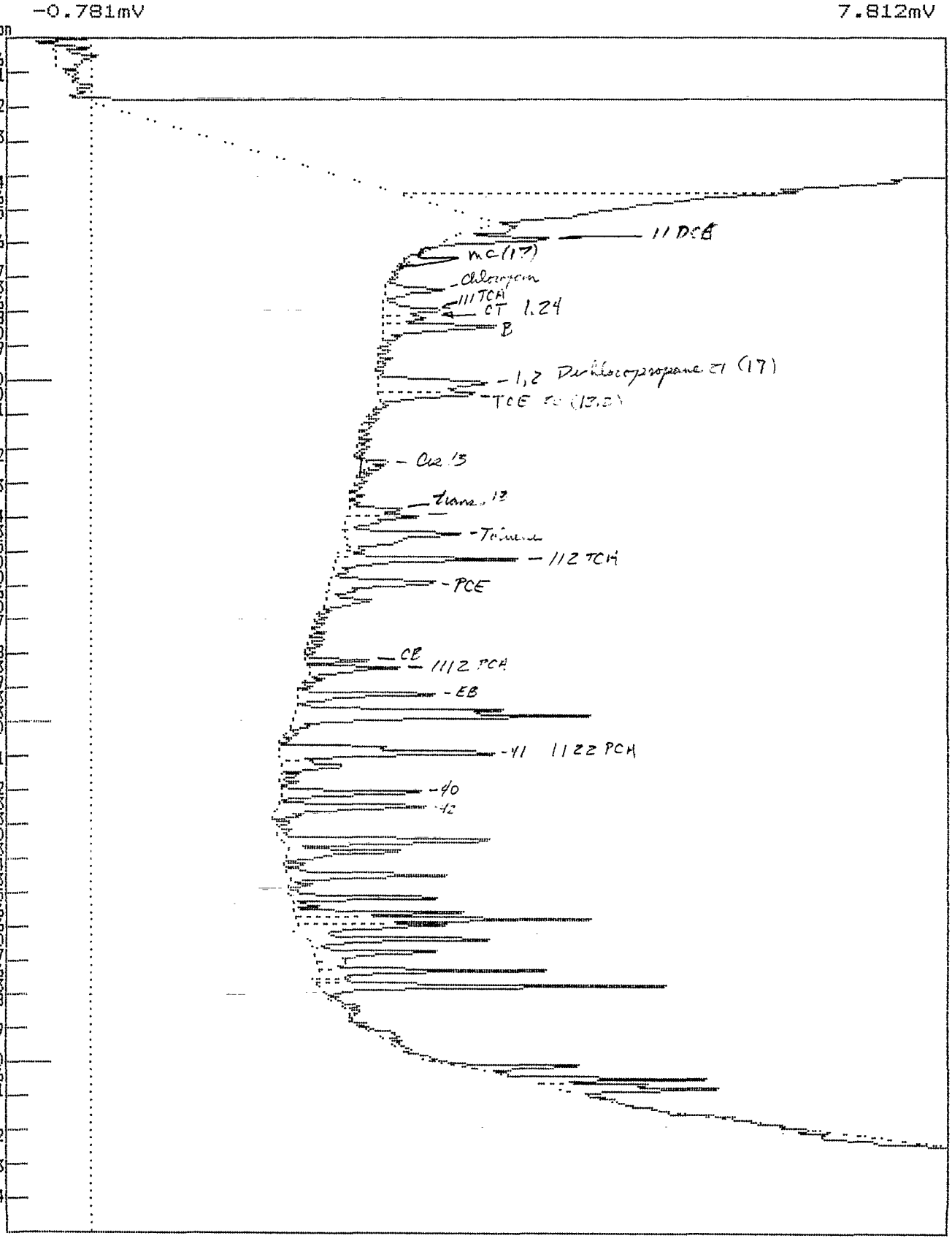
30



Retention	Area	
1.866	346203.25	M
7.516	15.50	
8.066	40.33	M
10.316	68.92	
12.550	11.43	
13.916	13.20	M
14.116	14.80	M
14.550	28.16	M
14.766	18.82	M
15.300	36.61	M
15.950	29.57	M
16.500	12.21	M
18.216	8.82	M
18.416	24.43	M
19.166	30.09	M
19.783	98.91	M
20.866	62.67	M
21.233	17.94	M
22.000	30.55	M
22.400	38.67	M
23.383	52.03	M
23.700	26.80	M
24.383	30.89	
25.050	31.88	
25.483	25.39	M
25.683	51.21	M
25.866	28.91	M
26.283	36.88	M
26.650	23.79	M
27.183	31.86	M
27.633	46.65	
30.016	16.69	
30.383	26.51	M
30.583	8.88	M
30.683	22.73	M
31.550	6.39	
32.366	5.03	
	347277.43	

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3CAL5C.CHR (C:\PEAK3\CC3)
Sample : 10 NG VOLATILES MIX

10

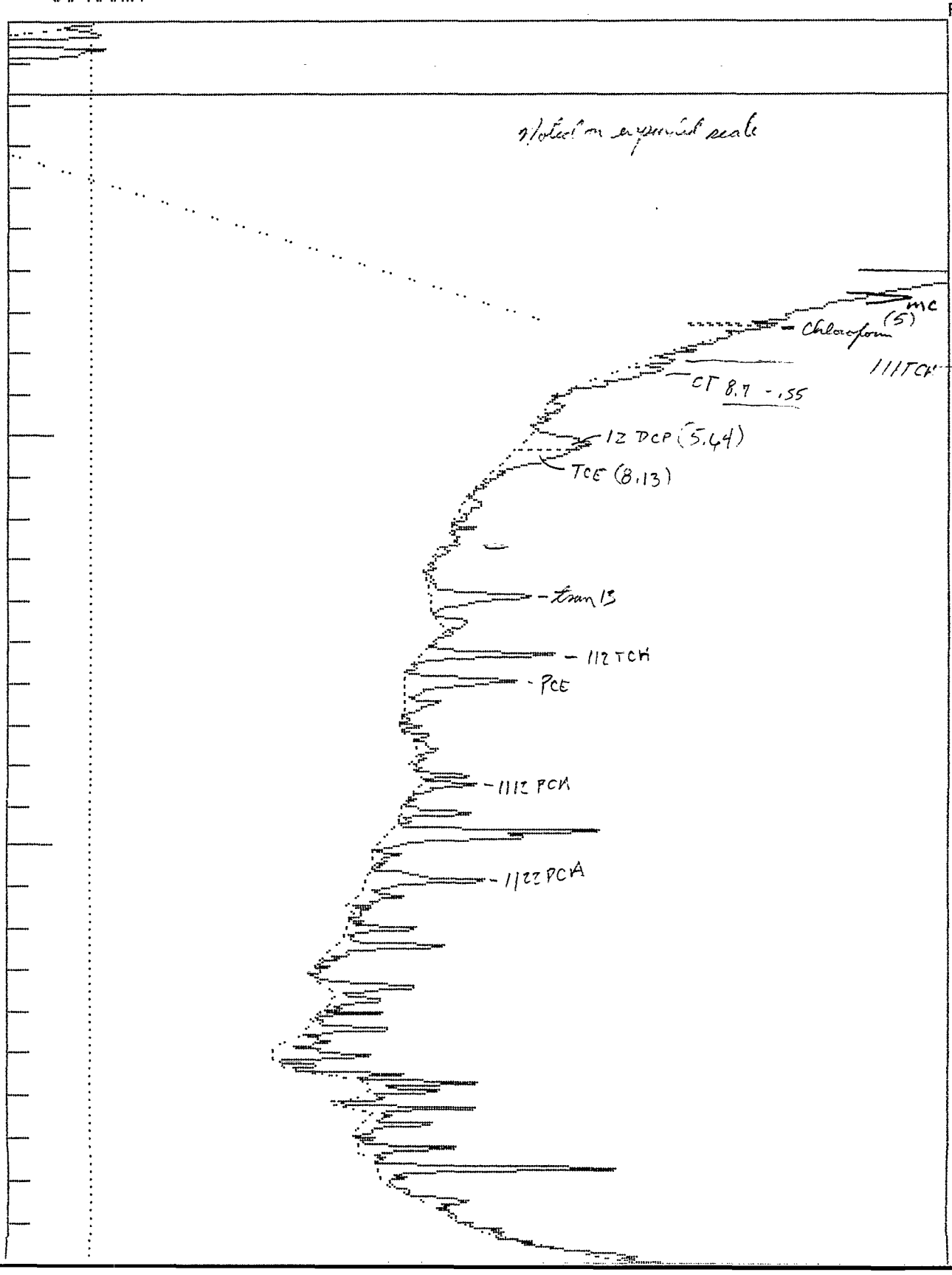


Retention	Area	
0.516	7.35	
1.816	177760.23	
4.466	105.58	
5.850	8.77	
7.333	7.26	
7.916	6.10	M
8.400	14.02	M
10.050	16.53	M
10.350	12.09	M
13.933	8.87	M
14.433	18.09	M
15.150	18.54	M
15.850	15.53	M
16.400	5.32	M
18.383	8.59	
19.133	12.53	
19.783	43.10	
20.866	26.45	M
21.250	8.05	M
22.016	12.81	
22.433	16.93	
23.400	22.78	
23.733	11.18	
24.433	13.43	
25.083	11.69	
25.516	10.45	M
25.716	21.92	M
25.900	16.15	M
26.300	14.56	M
26.683	10.89	M
27.216	15.40	M
27.683	26.56	M
30.083	8.83	
30.416	11.53	M
30.733	15.68	M
	178343.76	

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 1.00 Dilution= 3.00
0 Tangents=off
Data file : cc3cal2c.chr ()
Operator : PEARCE

3

-0.400mV 4.000mV



Retention	Area
0.316	4.80
0.650	15.26
1.050	1.74
1.283	2.52
1.816	337983.13 M
7.266	2.58 M
8.366	4.82 M
10.266	7.51 M
11.583	1.53 M
13.850	7.50
14.466	1.80
15.250	6.32
15.866	7.41
16.400	1.91
17.533	1.21
18.383	2.62
19.116	3.67
19.600	14.02
20.200	1.22
20.800	7.02
21.200	2.69
21.950	3.15
22.350	5.75
23.366	5.08
23.683	2.62
24.366	3.35
24.666	2.17
25.000	5.08
25.466	2.21
25.833	2.38
26.250	3.44
26.633	3.12
27.166	3.84
27.633	9.94
28.416	2.86

Retention	Area	
0.316	4.80	
0.650	15.26	
1.050	1.74	
1.283	2.52	
1.816	337983.13	M
7.266	2.58	M – Chloroform
8.166	1.30	M = 111TCH
8.366	4.82	M = CT
10.200	4.73	M
10.266	7.51	M
11.583	1.53	M
13.850	7.50	
14.466	1.80	
15.250	6.32	
15.866	7.41	
16.400	1.91	
17.533	1.21	
18.183	1.69	
18.383	2.62	
19.116	3.67	
19.600	14.02	
20.200	1.22	
20.800	7.02	
21.200	2.69	
21.950	3.15	
22.350	5.75	
23.366	5.08	
23.683	2.62	
24.366	3.35	
24.666	2.17	
25.000	5.08	
25.266	1.23	
25.466	2.21	
25.650	3.34	
25.833	2.38	
26.250	3.44	
26.633	3.12	
27.166	3.84	
27.633	9.94	
28.416	2.86	
30.016	3.05	
30.400	5.04	
30.666	3.51	
31.516	2.68	
31.716	2.33	
32.133	3.49	
32.350	2.59	
32.700	6.09	
	338177.35	

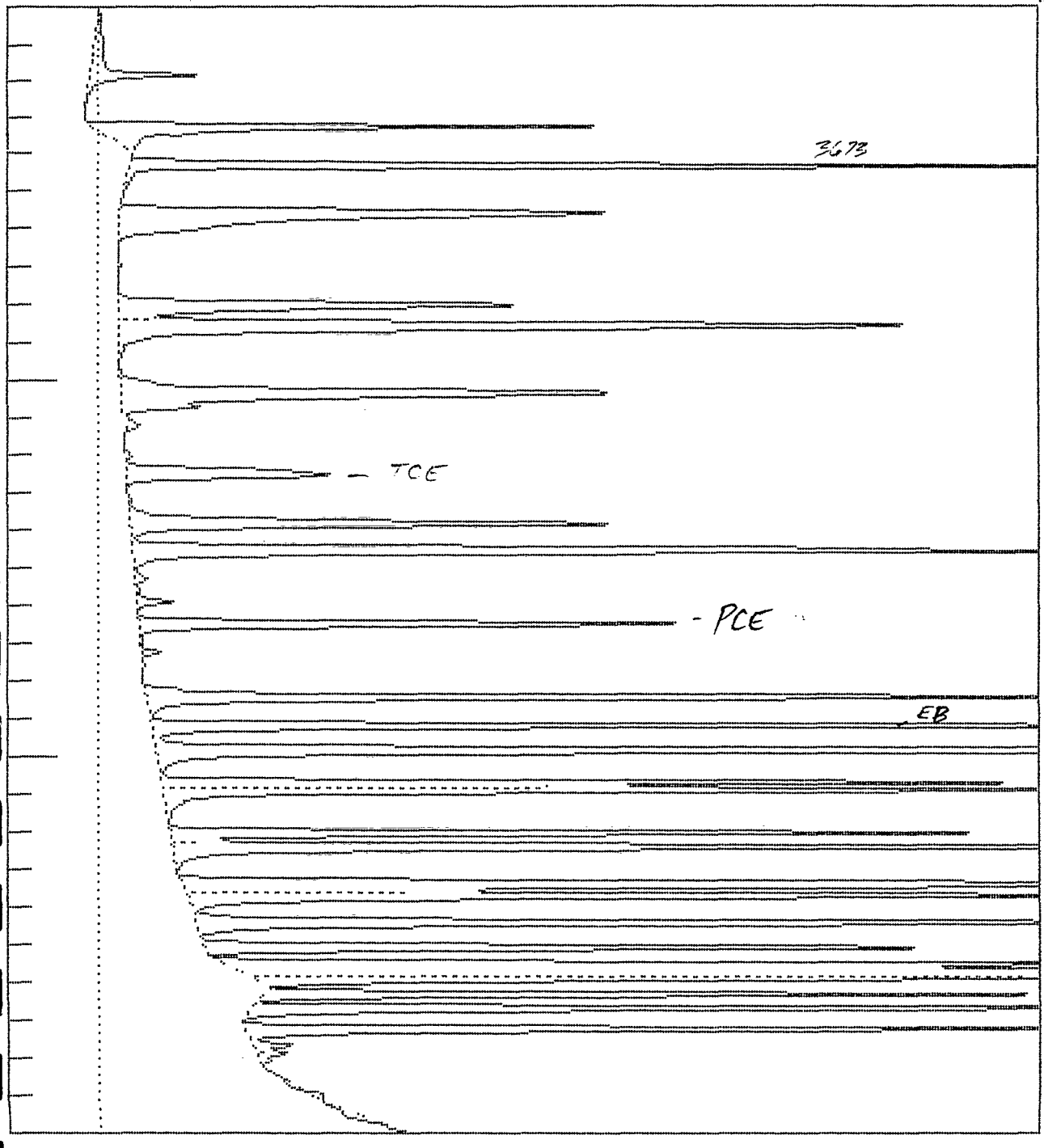
Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 1.00
0 Tangents=off
Data file : cc3cal4d.CHR ()
Operator : PEARCE

Temperature program:
Init temp Hold Ramp Final temp

Events:
Time Event

30

-25.600mV 256.000mV



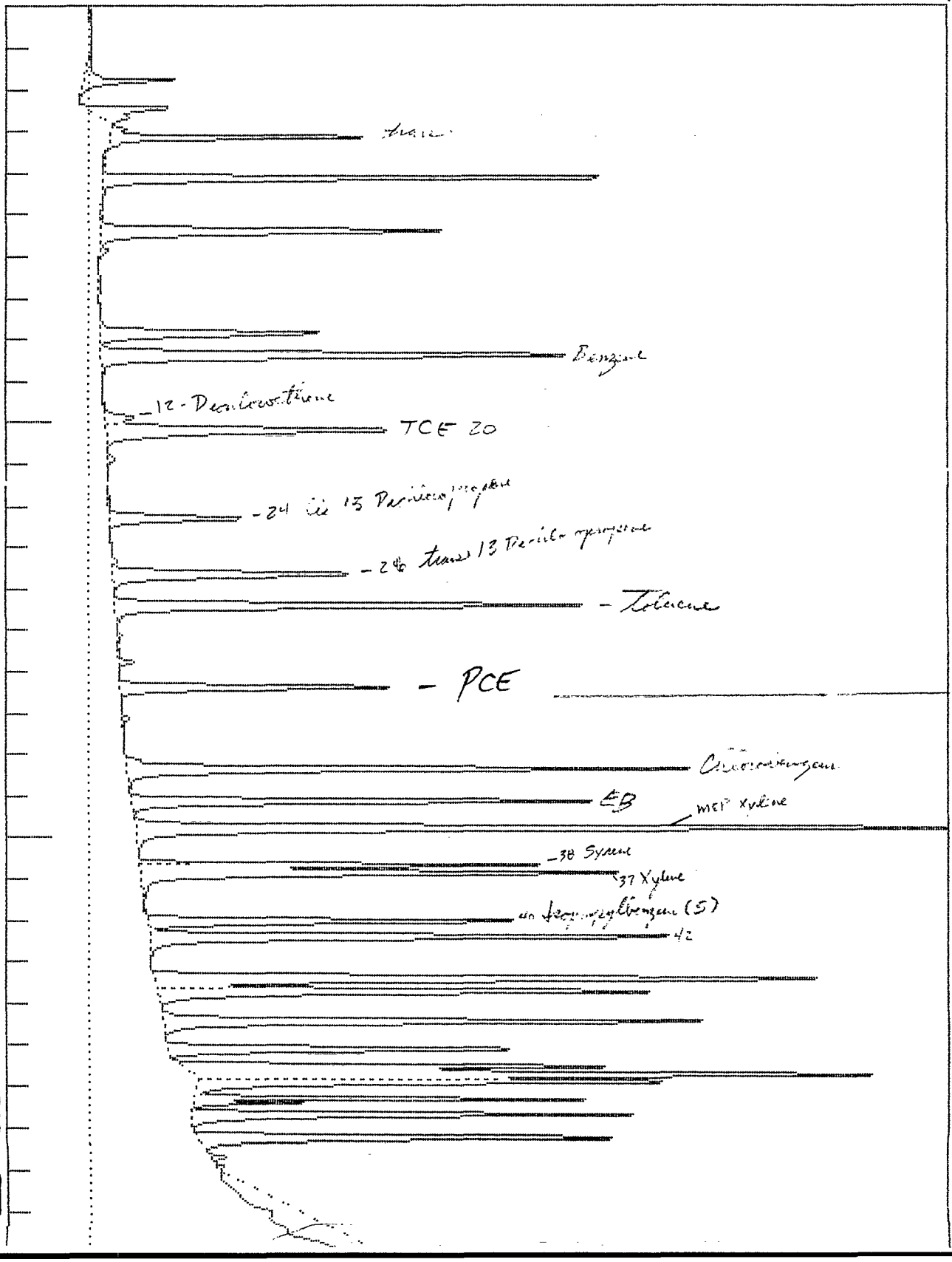
Retention	Area
1.800	524.75
3.216	1573.78 M
4.233	2413.40 M
5.566	2654.76 M
7.983	1528.60 M
8.516	3251.21 M
10.300	2426.44 M
12.500	953.58 M
13.816	1713.33 M
14.550	3517.48 M
15.283	43.41 M
15.883	95.79 M
16.450	1521.70
17.216	47.63
18.383	2823.31 M
19.133	2326.91 M
19.766	4567.38 M
20.650	1845.41 M
20.850	2653.94 M
21.983	1997.10
22.350	3027.61
23.350	4218.63
23.666	2876.77
24.366	2960.18
25.033	2043.19 M
25.650	5768.68 M
25.833	2566.81 M
26.266	1773.90
26.633	2077.70
27.183	2181.59
27.833	107.82

Retention	Area		External	Units
1.800	524.75		N/A	
3.216	1573.78	M	N/A	
4.233	2413.40	M	N/A	
5.566	2654.76	M	N/A	
7.983	1528.60	M	N/A	
8.516	3251.21	M	N/A	
10.300	2426.44	M	N/A	
12.500	953.58	M	N/A	
13.816	1713.33	M	N/A	
14.550	3517.48	M	N/A	
15.283	43.41	M	N/A	
15.600	11.71	M	N/A	
15.883	95.79	M	N/A	
16.450	1521.70		N/A	
17.216	47.63		N/A	
18.383	2823.31	M	N/A	
19.133	2326.91	M	N/A	
19.766	4567.38	M	N/A	
20.650	1845.41	M	N/A	
20.850	2653.94	M	N/A	
21.983	1997.10		N/A	
22.350	3027.61		N/A	
23.350	4218.63		N/A	
23.666	2876.77		N/A	
24.366	2960.18		N/A	
25.033	2043.19	M	N/A	
25.650	5768.68	M	N/A	
25.833	2566.81	M	N/A	
26.266	1773.90		N/A	
26.633	2077.70		N/A	
27.183	2181.59		N/A	
27.633	97.51		N/A	
27.833	107.82		N/A	
30.016	1488.19		N/A	
30.366	1886.31		N/A	
30.666	2256.95		N/A	
31.583	118.66		N/A	
31.983	299.49		N/A	
32.350	33.50		N/A	
32.533	26.75		N/A	
32.950	19.15		N/A	
	74321.00		0.00	

Lab name : IEES
Client : CROWN CITY
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 3.00
0 Tangents=off
Data file : cc3cal5d.chr ()
Operator : PEARCE

10

-25.600mV 256.000mV



Retention	Area
1.766	273.63
2.416	313.80 M
3.133	574.07 M
4.100	1254.20 M
5.366	1074.88 M
5.866	26.61 M
7.833	711.03 M
8.366	1494.12 M
9.883	80.35 M
10.166	999.44 M
10.883	27.29 M
12.283	423.91 M
13.633	809.86 M
14.383	1336.40 M
15.133	13.86 M
15.766	37.84 M
16.366	726.64 M
17.133	19.19 M
18.333	1470.50 M
19.100	1211.12 M
19.750	2375.82 M
20.833	2153.83 M
22.000	965.67 M
22.366	1466.94 M
23.400	2086.18 M
23.700	1400.80 M
24.416	1439.57 M
25.066	955.75 M
25.850	1403.94 M
26.300	780.61 M
26.666	1037.30 M
27.200	1043.68 M
27.666	33.58 M
27.883	14.42 M

Retention	Area	
1.766	273.63	
2.416	313.80	M
3.133	574.07	M
4.100	1254.20	M
5.366	1074.88	M
5.866	26.61	M
7.833	711.03	M
8.366	1494.12	M
9.883	80.35	M
10.166	999.44	M
10.883	27.29	M
12.283	423.91	M
13.633	809.86	M
14.383	1336.40	M
15.133	13.86	M
15.766	37.84	M
16.366	726.64	M
17.133	19.19	M
18.333	1470.50	M
19.100	1211.12	M
19.750	2375.82	M
20.833	2153.83	M
22.000	965.67	M
22.366	1466.94	M
23.400	2086.18	M
23.700	1400.80	M
24.416	1439.57	M
25.066	955.75	M
25.683	2735.86	M
25.850	1403.94	M
26.300	780.61	M
26.666	1037.30	M
27.200	1043.68	M
27.666	33.58	M
27.883	14.42	M
30.400	955.46	M
30.716	1381.90	M
31.366	80.92	M
32.066	442.34	M
32.550	247.56	M
	35880.87	

Lab name : IEES
Client : CROWN CITY
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 1.00
0 Tangents=off
Data file : cc3cal2d.CHR ()
Operator : PEARCE

Temperature program:

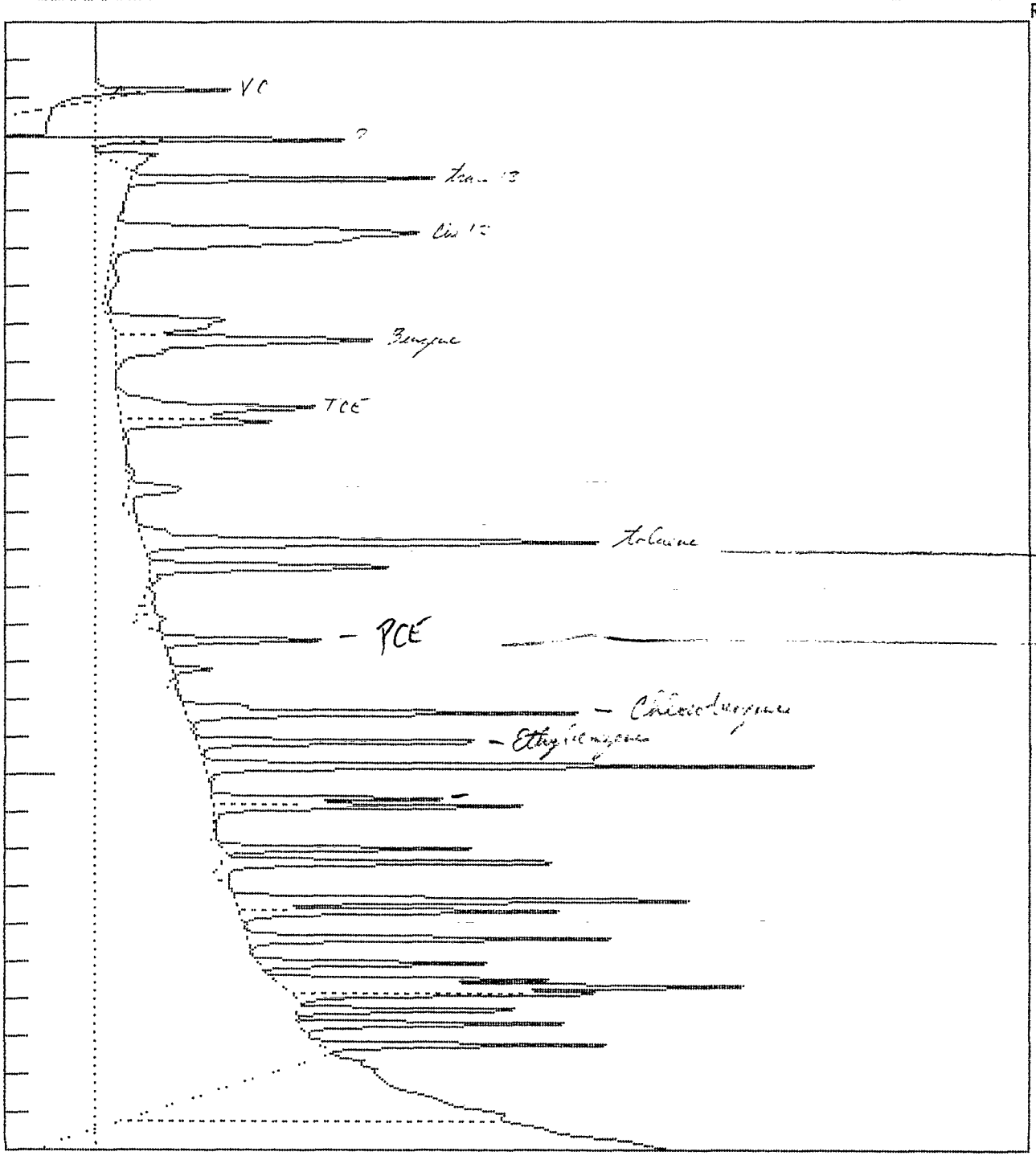
Init temp	Hold	Ramp	Final temp

Events:

Time	Event

3

-12.800mV 128.000mV



Retention	Area
1.850	386.94 M
3.466	138.97 M
4.133	372.57 M
5.566	1162.52 M
6.833	56.86 M
7.866	361.71 M
8.383	613.46 M
10.566	274.11 M
12.383	150.82 M
13.150	17.84 M
13.766	801.95 M
14.433	415.15 M
14.783	15.27 M
15.200	31.05 M
15.833	75.08 M
16.383	212.08 M
17.150	47.76 M
17.516	12.97 M
18.316	556.28 M
19.083	360.50 M
19.716	739.85 M
20.783	407.49 M
21.950	290.79 M
22.300	478.96 M
22.900	17.77 M
23.316	677.11 M
23.600	418.07 M
24.333	420.55 M
25.000	279.98 M
25.616	918.18 M
25.800	417.27 M
26.250	257.40 M
26.616	294.90 M
27.166	306.20 M
29.000	2486.01 M

Retention	Area		External	Units
1.750	79.06	M	N/A	
1.850	386.94	M	N/A	
3.116	160.06	M	N/A	
3.466	138.97	M	N/A	
4.133	372.57	M	N/A	
5.566	1162.52	M	N/A	
6.833	56.86	M	N/A	
7.866	361.71	M	N/A	
8.383	613.46	M	N/A	
10.183	461.68	M	N/A	
10.566	274.11	M	N/A	
11.950	15.15	M	N/A	
12.383	150.82	M	N/A	
13.150	17.84	M	N/A	
13.766	801.95	M	N/A	
14.433	415.15	M	N/A	
14.783	15.27	M	N/A	
15.200	31.05	M	N/A	
15.550	24.69	M	N/A	
15.833	75.08	M	N/A	
16.150	17.49	M	N/A	
16.383	212.08	M	N/A	
17.150	47.76	M	N/A	
17.516	12.97	M	N/A	
18.316	556.28	M	N/A	
19.083	360.50	M	N/A	
19.716	739.85	M	N/A	
20.600	226.65	M	N/A	
20.783	407.49	M	N/A	
21.950	290.79	M	N/A	
22.300	478.96	M	N/A	
22.900	17.77	M	N/A	
23.316	677.11	M	N/A	
23.600	418.07	M	N/A	
24.333	420.55	M	N/A	
25.000	279.98	M	N/A	
25.616	918.18	M	N/A	
25.800	417.27	M	N/A	
26.250	257.40	M	N/A	
26.616	294.90	M	N/A	
27.166	306.20	M	N/A	
29.000	2486.01	M	N/A	
30.000	4659.13	M	N/A	
30.350	2599.66	M	N/A	
30.650	2277.69	M	N/A	
31.616	6348.98		N/A	
32.050	2405.61		N/A	
32.600	836.05		N/A	
	34586.30		0.00	

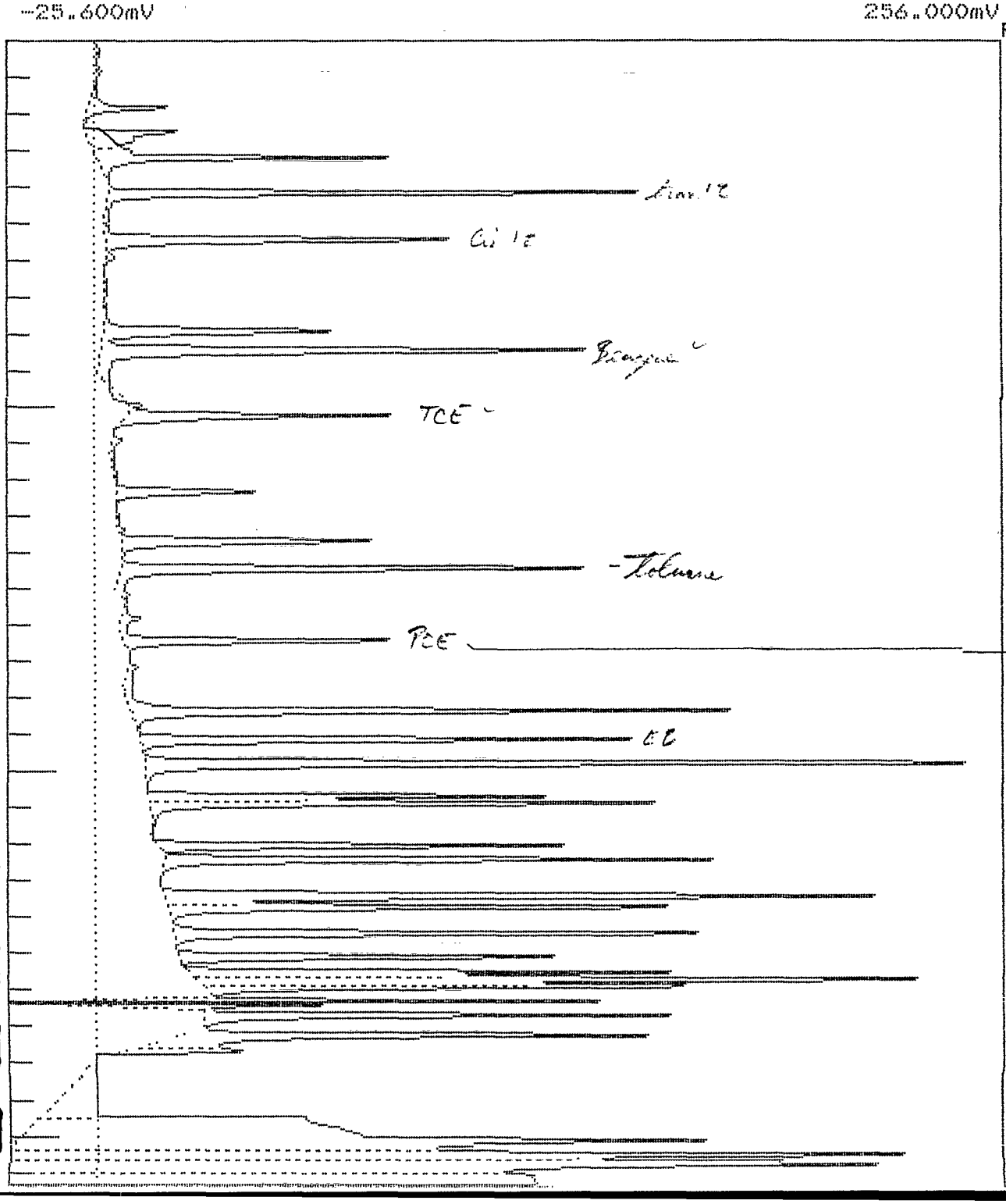
Lab name : IEES
Client : CROWN CITY
Method : DIRECT COLD ON COLUMN
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 1.00 Dilution= 1.00
0 Tangents=off
Data file : c3qcph1.chr ()
Operator : PEARCE

Temperature program:

Init temp	Hold	Ramp	Final temp

Events:

Time	Event



Retention	Area	
0.333	15.19	
0.833	17.37	
1.800	276.62	
2.466	423.48	M
3.150	838.20	M
4.116	1283.17	M
5.400	1084.90	M
5.900	20.21	M
6.583	3.33	M
6.766	10.60	M
7.350	9.60	M
7.866	744.11	M
8.400	1632.89	M
9.916	18.27	M
10.200	874.37	M
10.916	42.65	M
11.866	34.94	M
12.316	423.73	M
13.050	17.18	M
13.666	786.90	M
14.433	1395.62	M
15.333	1.35	M
15.800	82.71	M
16.416	779.77	M
17.183	37.17	M
17.566	35.75	M
18.333	1575.79	M
19.100	1208.89	M
19.750	2374.02	M
20.650	833.67	M
20.833	1330.07	M
21.700	5.13	M
22.000	968.73	M
22.366	1429.57	M
23.400	2086.18	M
23.700	1400.80	M
24.416	1439.57	M
25.066	955.75	M
25.683	1897.14	M
25.850	1419.62	M
26.350	513.25	M
26.666	1037.30	M
27.200	1343.84	M
27.883	729.68	M
30.050	5308.56	M
30.400	3072.88	M
30.716	4700.76	M
31.366	906.01	

Retention	Area	
0.333	15.19	
0.833	17.37	
1.800	276.62	
2.466	423.48	M
3.150	838.20	M
4.116	1283.17	M
5.400	1084.90	M
5.900	20.21	M
6.583	3.33	M
6.766	10.60	M
7.350	9.60	M
7.866	744.11	M
8.400	1632.89	M
9.916	18.27	M
10.200	874.37	M
10.916	42.65	M
11.866	34.94	M
12.316	423.73	M
13.050	17.18	M
13.383	19.79	M
13.666	786.90	M
14.433	1395.62	M
15.166	31.97	M
15.333	1.35	M
15.550	10.60	M
15.800	82.71	M
16.416	779.77	M
16.916	1.97	M
17.183	37.17	M
17.566	35.75	M
18.333	1575.79	M
19.100	1208.89	M
19.750	2374.02	M
20.650	833.67	M
20.833	1330.07	M
21.700	5.13	M
22.000	968.73	M
22.366	1429.57	M
23.400	2086.18	M
23.700	1400.80	M
24.416	1439.57	M
25.066	955.75	M
25.500	883.11	M
25.683	1897.14	M
25.850	1419.62	M
26.300	888.55	M
26.350	513.25	M
26.666	1037.30	M
27.200	1343.84	M
27.666	316.38	M
27.883	729.68	M
30.050	5308.56	M
30.400	3072.88	M
30.716	4700.76	M
31.300	3620.69	M
31.366	906.01	
31.666	3128.65	
32.066	2668.36	
32.266	697.17	
32.550	1080.74	
32.966	108.37	
	60883.61	

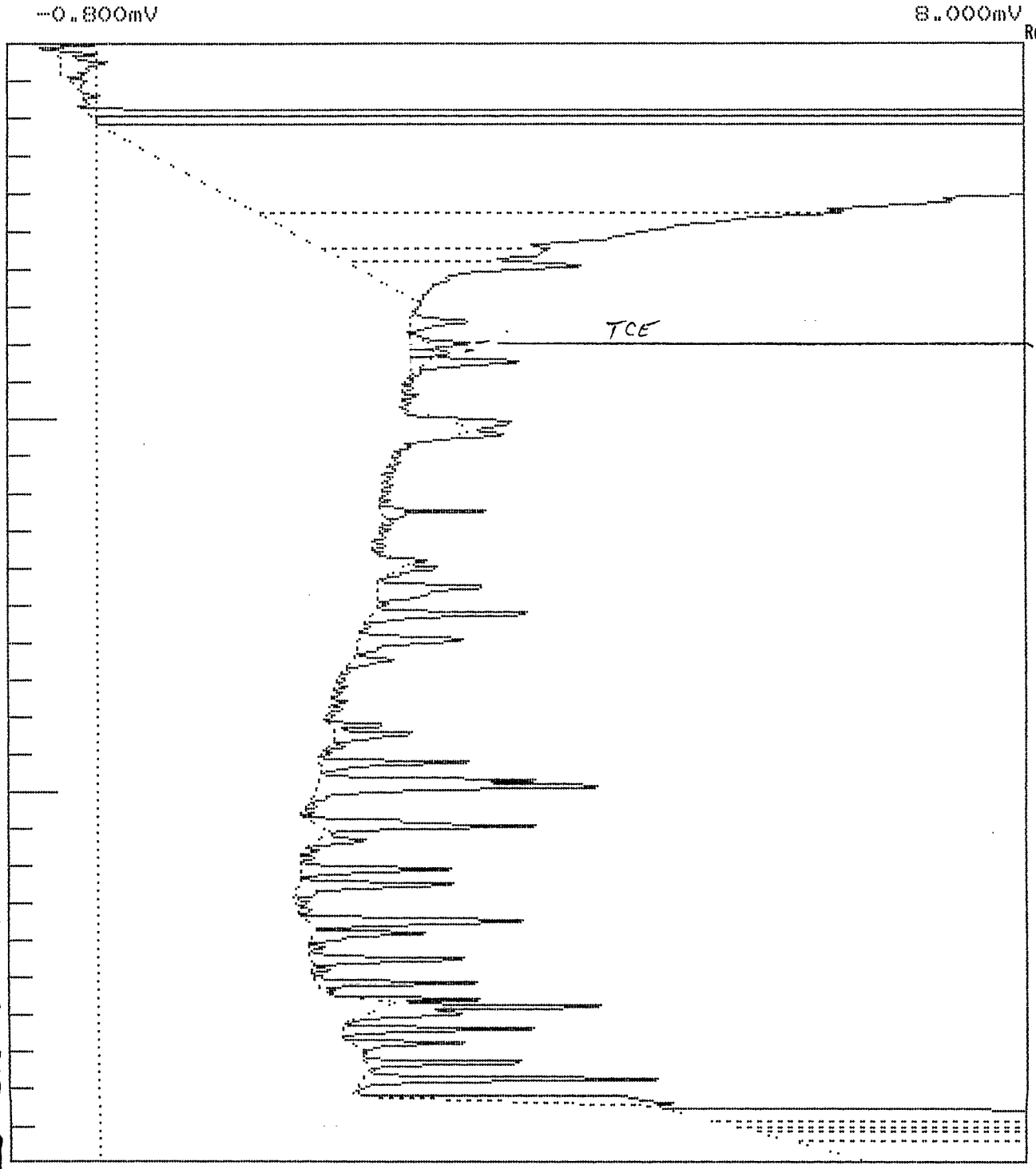
Lab name : IEES
Client : CROWN CITY
Method : DIRECT COLD ON COLUMN
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 1.00 Dilution= 1.00
0 Tangents=off
Data file : c3gcf1.chr ()
Operator : PEARCE

Temperature program:

Init temp	Hold	Ramp	Final temp

Events:

Time	Event



Retention	Area
0.116	3.04
0.516	7.35
0.866	1.12
1.850	17407.33
2.216	86756.47
4.466	199.04
5.450	35.77
5.883	52.44
7.366	6.75
7.950	3.04
8.433	9.71
10.083	5.39
10.383	2.55
12.433	5.74
13.966	3.31
14.466	15.35
15.183	14.41
15.883	13.09
16.433	4.16
18.416	7.88
19.166	11.88
19.816	42.01
20.900	22.12
21.283	4.19
22.050	12.39
22.450	16.19
23.433	21.57
23.766	9.77
24.750	1.02
25.116	11.62
25.550	5.32
25.733	22.17
26.333	12.44
26.716	7.75
27.250	11.35
27.700	21.49
28.350	16.56
28.650	185.09
29.250	85.17

Retention	Area
0.116	3.04
0.516	7.35
0.866	1.12
1.850	17407.33
2.216	86756.47
4.466	199.04
5.450	35.77
5.883	52.44
7.366	6.75
7.950	3.04
8.433	9.71
10.083	5.39
10.383	2.55
12.433	5.74
13.966	3.31
14.466	15.35
15.183	14.41
15.883	13.09
16.433	4.16
18.200	3.52
18.416	7.88
19.166	11.88
19.816	42.01
20.900	22.12
21.283	4.19
22.050	12.39
22.450	16.19
23.433	21.57
23.766	9.77
24.466	12.78
24.750	1.02
25.116	11.62
25.550	5.32
25.733	22.17
26.333	12.44
26.716	7.75
27.250	11.35
27.700	21.49
28.350	16.56
28.650	185.09
28.866	129.66
28.966	90.88
29.250	85.17
29.916	208.76
30.100	13.71
30.450	14.97
30.750	73.54
32.483	9.97
32.950	5.04
	105636.86

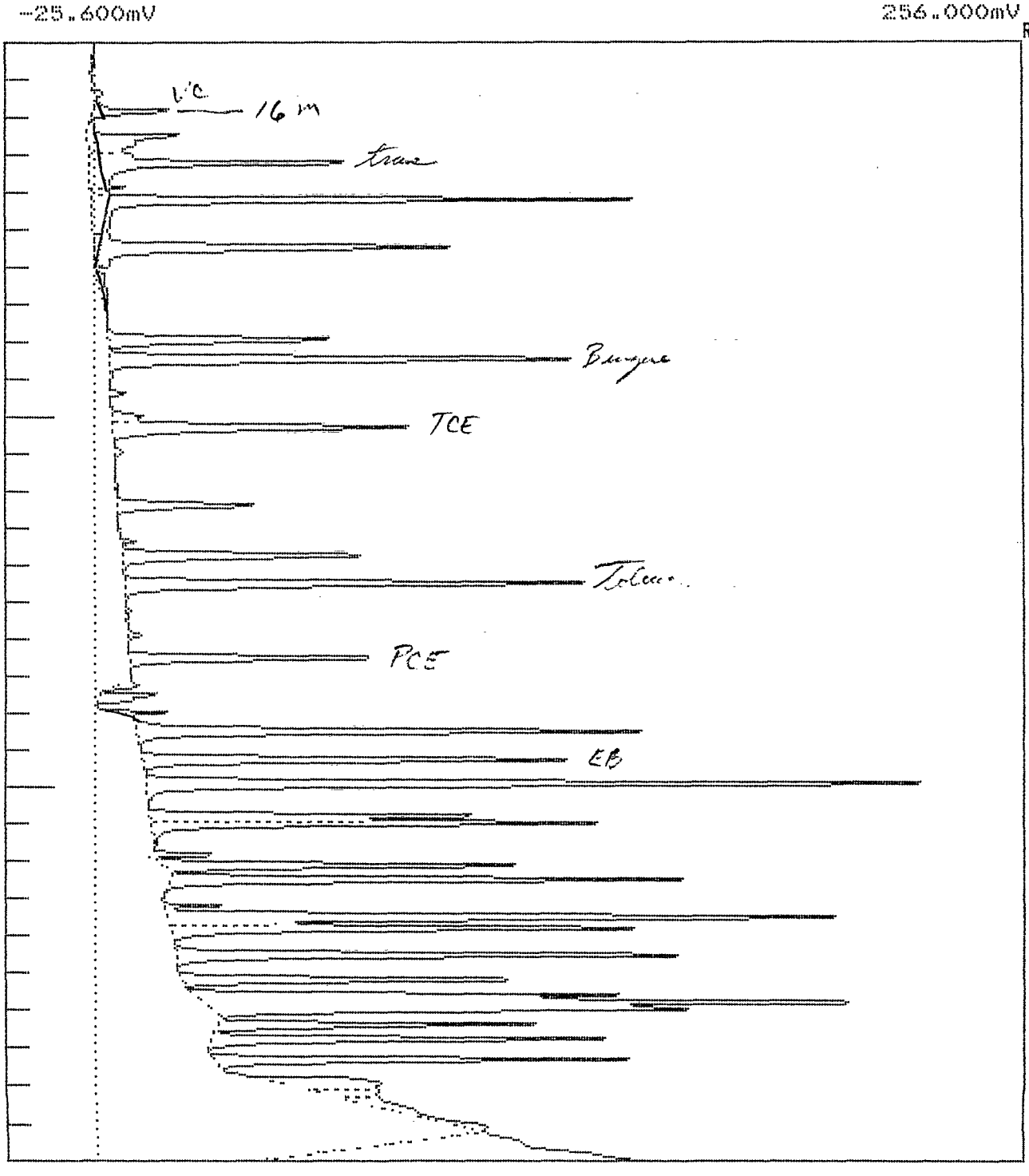
Lab name : IEES
Client : CROWN CITY
Method : DIRECT COLD ON COLUMN
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 1.00
0 Tangents=off
Data file : c3qcph2.chr ()
Operator : PEARCE

Temperature program:

Init temp	Hold	Ramp	Final temp

Events:

Time	Event



Retention	Area	
0.400	12.62	
1.383	14.40	
2.083	25.82	
2.466	424.99	
3.183	1000.11	
3.800	77.19	
4.166	1560.45	
5.433	1251.70	
5.916	40.54	
6.833	13.47	
7.900	696.38	
8.433	1476.83	
9.366	27.80	
9.950	80.22	
10.216	1005.74	
10.950	23.36	
12.350	421.87	
13.700	775.55	
14.450	1425.33	
15.866	36.09	
16.466	720.88	
17.233	67.96	
17.466	185.23	
17.933	58.06	M
18.433	1470.03	M
19.200	1203.55	M
19.850	2368.70	M
20.750	790.25	M
20.933	1367.45	M
22.066	952.83	M
22.450	1385.16	M
23.466	2072.77	M
23.750	1399.02	M
24.483	1435.92	M
25.133	942.89	M
25.750	4135.19	M
26.350	725.68	M
26.733	1009.02	M
27.266	1029.84	M
27.916	432.10	M
28.116	200.54	M
29.016	379.39	M

Retention	Area	
0.400	12.62	
1.383	14.40	
1.800	203.72	
2.083	25.82	
2.466	424.99	
3.183	1000.11	
3.800	77.19	
4.166	1560.45	
5.433	1251.70	
5.916	40.54	
6.650	71.25	
6.833	13.47	
7.900	696.38	
8.433	1476.83	
9.366	27.80	
9.950	80.22	
10.216	1005.74	
10.950	23.36	
12.350	421.87	
13.316	22.37	
13.700	775.55	
14.450	1425.33	
15.866	36.09	
16.466	720.88	
17.233	67.96	
17.466	185.23	
17.933	58.06	M
18.433	1470.03	M
19.200	1203.55	M
19.850	2368.70	M
20.750	790.25	M
20.933	1367.45	M
21.816	125.79	M
22.066	952.83	M
22.450	1385.16	M
23.166	70.30	M
23.466	2072.77	M
23.750	1399.02	M
24.483	1435.92	M
25.133	942.89	M
25.750	4135.19	M
26.350	725.68	M
26.733	1009.02	M
27.266	1029.84	M
27.916	432.10	M
28.116	200.54	M
29.016	379.39	M
30.050	6162.73	M
30.400	5154.27	M
30.716	8509.63	M
31.300	6944.08	M
31.366	1812.02	
31.666	6257.30	
32.066	5336.73	
32.266	1394.34	
32.550	2161.48	
32.966	216.74	
	79165.66	

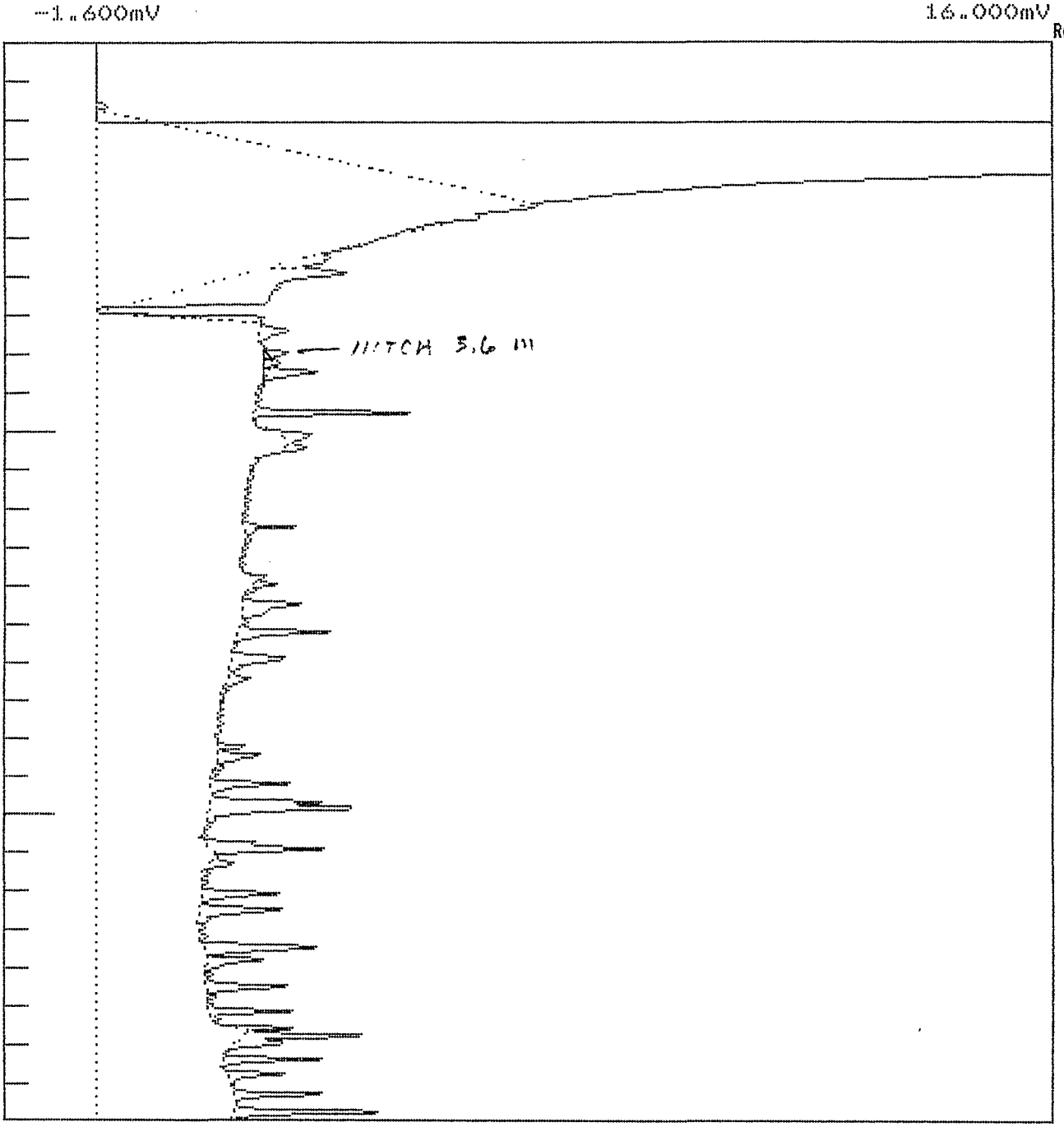
Lab name : IEES
Client : CROWN CITY
Method : DIRECT COLD ON COLUMN
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 1.00 Dilution= 1.00
0 Tangents=off
Data file : c3qaf2.chr ()
Operator : PEARCE

Temperature program:

Init temp	Hold	Ramp	Final temp

Events:

Time	Event



Retention	Area
1.666	1.15
2.250	188830.50 M
5.483	8.71 M
5.883	93.46 M
7.050	10.06
7.366	6.54
7.950	3.03
8.433	9.73
9.483	19.88
10.083	5.58
10.383	2.34
12.433	5.74
13.933	3.50
14.433	15.03
15.150	14.74
15.850	13.68
16.400	4.58
18.400	7.97
19.166	11.92
19.800	42.10
21.266	4.41
22.050	12.46
22.450	16.36
23.433	21.84
23.766	10.10
24.750	1.07
25.116	11.73
25.533	5.26
25.733	22.48
26.333	12.55
26.716	7.93
27.233	11.38
27.700	21.58

Retention	Area	
1.666	1.15	
2.250	188830.50	M
5.483	8.71	M
5.883	93.46	M
7.050	10.06	
7.366	6.54	
7.950	3.03	
8.433	9.73	
9.483	19.88	
10.083	5.58	
10.383	2.34	
12.433	5.74	
13.733	1.46	
13.933	3.50	
14.433	15.03	
15.150	14.74	
15.850	13.68	
16.400	4.58	
18.183	3.48	
18.400	7.97	
19.166	11.92	
19.800	42.10	
20.883	22.20	
21.266	4.41	
22.050	12.46	
22.450	16.36	
23.433	21.84	
23.766	10.10	
24.450	12.91	
24.750	1.07	
25.116	11.73	
25.533	5.26	
25.733	22.48	
26.333	12.55	
26.716	7.93	
27.233	11.38	
27.700	21.58	
28.350	1.45	
29.216	3.19	
29.600	1.13	
29.816	1.36	
30.083	8.83	
30.416	7.89	
30.733	11.87	
32.483	9.97	
32.950	5.04	
	189360.17	

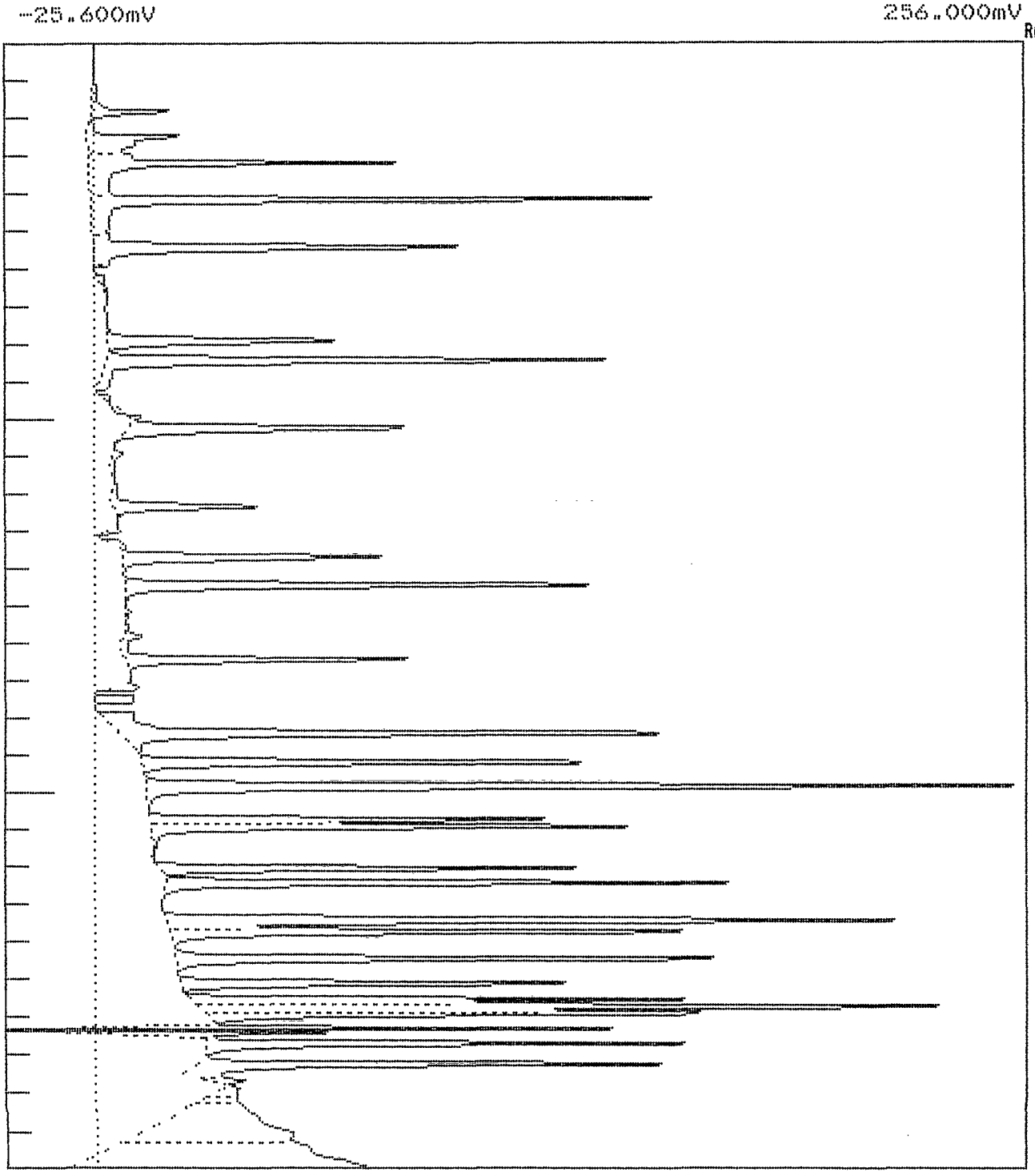
Lab name : IEES
Client : CROWN CITY
Method : DIRECT COLD ON COLUMN
Column : J&W DB-VRX
Carrier : NITROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 10.00 Dilution= 1.00
0 Tangents=off
Data file : c3gaph2.CHR ()
Operator : PEARCE

Temperature program:

Init temp	Hold	Ramp	Final temp

Events:

Time	Event



Retention	Area	
2.083	25.82	
2.466	425.00	
3.150	1050.42	
4.116	1551.26	
5.400	1248.96	
5.866	38.53	
6.583	36.87	M
7.866	701.00	
8.400	1593.13	
9.916	22.48	M
10.183	876.09	M
10.916	44.63	M
11.850	33.42	M
12.316	457.65	M
13.000	25.48	M
13.666	774.57	M
14.416	1321.49	M
15.166	10.63	M
15.800	66.48	M
16.400	771.85	M
17.166	55.42	M
17.550	142.68	M
18.366	1791.07	M
19.133	1206.54	M
19.783	2372.47	M
20.683	798.83	M
20.866	1361.19	M
22.000	968.73	M
22.366	1429.57	M
23.400	2086.18	M
23.700	1400.80	M
24.416	1439.57	M
25.066	955.75	M
25.683	1897.14	M
25.850	1419.62	M
26.350	513.25	M
26.666	1037.30	M
27.200	1200.93	M
27.883	52.80	M
28.066	91.67	M
29.016	1593.52	M

Retention	Area	
1.800	257.65	
2.083	25.82	
2.466	425.00	
3.150	1050.42	
4.116	1551.26	
5.400	1248.96	
5.866	38.53	
6.583	36.87	M
7.866	701.00	
8.400	1593.13	
9.916	22.48	M
10.183	876.09	M
10.916	44.63	M
11.600	13.59	M
11.850	33.42	M
12.316	457.65	M
13.000	25.48	M
13.400	47.57	M
13.666	774.57	M
14.416	1321.49	M
15.166	10.63	M
15.800	66.48	M
16.400	771.85	M
17.166	55.42	M
17.550	142.68	M
18.366	1791.07	M
19.133	1206.54	M
19.783	2372.47	M
20.683	798.83	M
20.866	1361.19	M
22.000	968.73	M
22.366	1429.57	M
23.400	2086.18	M
23.700	1400.80	M
24.416	1439.57	M
25.066	955.75	M
25.500	883.11	M
25.683	1897.14	M
25.850	1419.62	M
26.300	888.55	M
26.350	513.25	M
26.666	1037.30	M
27.200	1200.93	M
27.666	121.82	M
27.883	52.80	M
28.066	91.67	M
29.016	1593.52	M
30.050	5271.86	M
30.400	2909.11	M
30.716	4553.45	M
31.300	3571.59	M
31.366	906.01	
31.666	3128.65	
32.066	2668.36	
32.266	697.17	
32.550	1080.74	
32.966	108.37	
	61998.37	

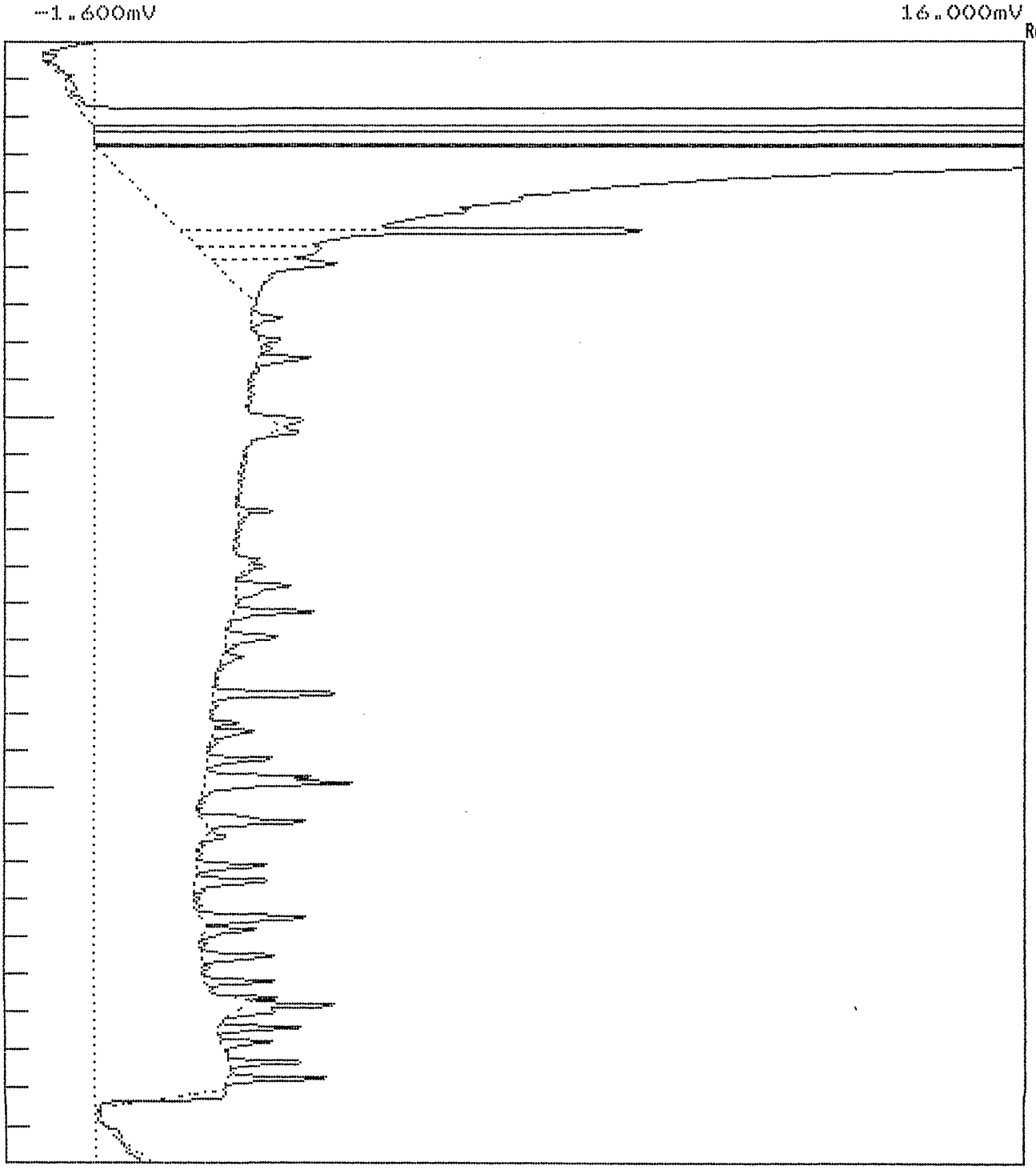
Lab name : IEES
Client : CROWN CITY
Method : DIRECT COLD ON COLUMN
Column : J&W DB-VRX 75 METERS
Carrier : HYDROGEN
Temp. prog : SOL10-CK.TEM
Integration : Peak sens=95.0 Base sens=30.0 Min area= 1.00 Dilution= 1.00
0 Tangents=off
Data file : c3qcf2.chr ()
Operator : PEARCE

Temperature program:

Init temp	Hold	Ramp	Final temp

Events:

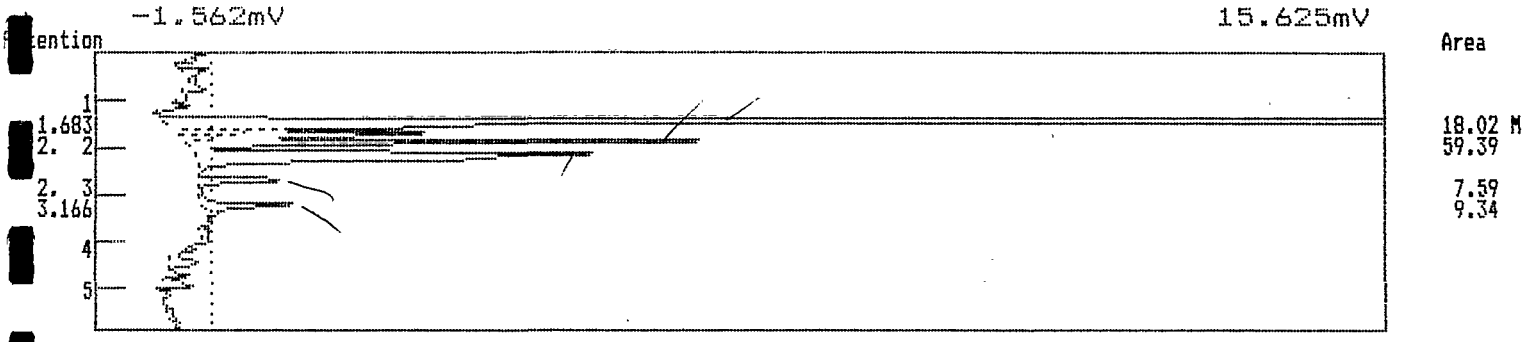
Time	Event



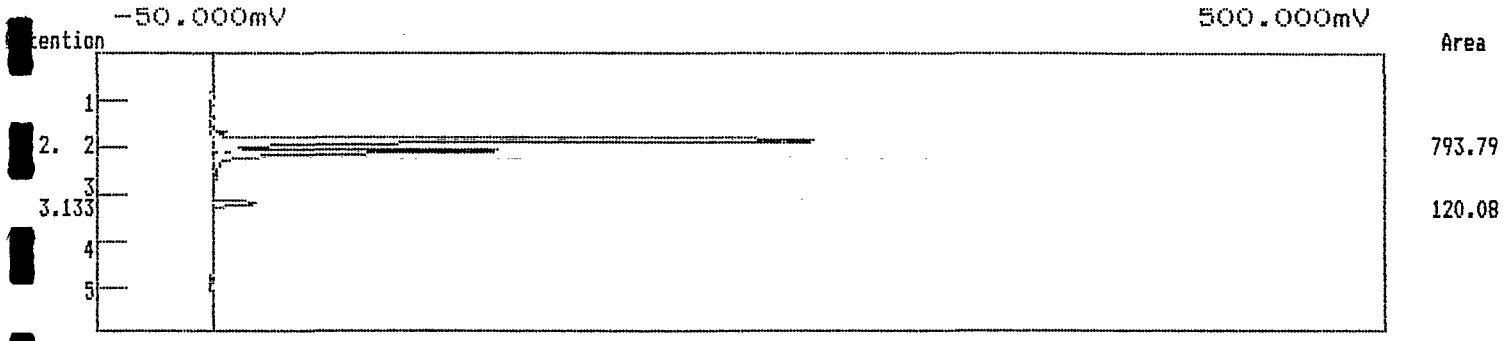
Retention	Area
0.266	2.01
0.516	2.96
0.983	2.37
1.816	95213.51
2.350	39639.10
2.783	1723.61
4.966	127.42
5.516	41.35
5.900	60.28
7.333	7.26
7.916	3.46
8.183	1.24
8.400	9.82
10.050	6.73
10.350	4.65
12.466	5.52
13.983	3.13
14.483	15.12
15.200	14.24
15.900	12.89
16.450	4.61
17.416	21.66
18.433	7.54
19.183	11.64
19.833	41.78
20.916	22.54
21.300	3.43
22.066	12.23
22.466	15.88
23.450	20.79
23.783	9.20
24.483	14.50
25.166	10.56
25.600	3.92
25.800	19.46
26.400	11.87
26.783	8.47
27.300	11.16
27.733	13.51
28.116	6.79
29.266	2.40

Retention	Area
0.266	2.01
0.516	2.96
0.983	2.37
1.816	95213.51
2.350	39639.10
2.783	1723.61
4.966	127.42
5.516	41.35
5.900	60.28
7.333	7.26
7.916	3.46
8.183	1.24
8.400	9.82
10.050	6.73
10.350	4.65
12.466	5.52
13.983	3.13
14.483	15.12
15.200	14.24
15.900	12.89
16.450	4.61
17.416	21.66
18.216	3.19
18.433	7.54
19.183	11.64
19.833	41.78
20.916	22.54
21.300	3.43
22.066	12.23
22.466	15.88
23.450	20.79
23.783	9.20
24.483	14.50
25.166	10.56
25.600	3.92
25.800	19.46
26.400	11.87
26.783	8.47
27.300	11.16
27.733	13.51
28.116	6.79
29.266	2.40
30.083	1.49
30.416	7.89
30.733	11.87
32.483	69.81
32.950	11.28
	137276.17

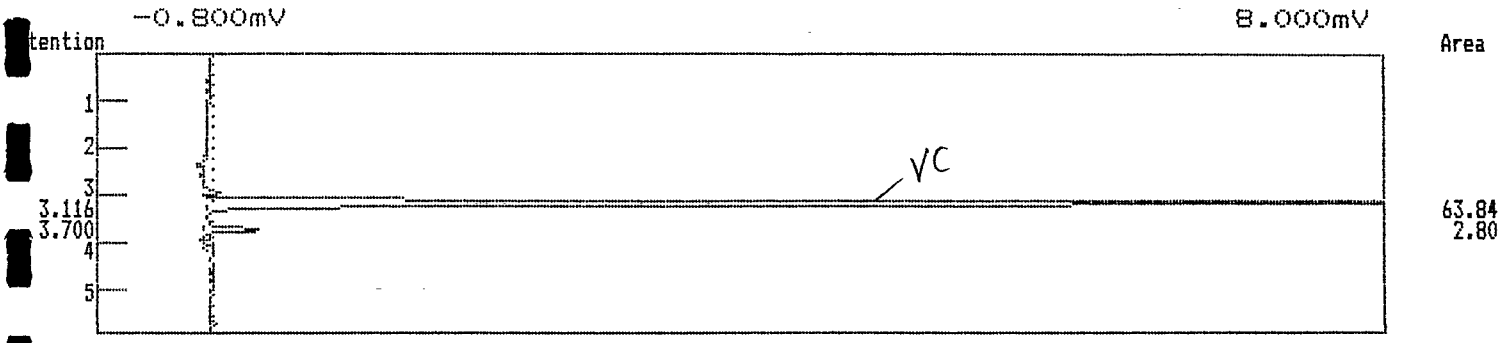
Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3GAS1C.CHR (C:\PEAK3\CC3)
Sample : 25 UL CAL GAS STD



Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 4 - PID
Data file : CC3GAS1D.CHR (C:\PEAK3\CC3)
Sample : 25 UL CAL GAS STD

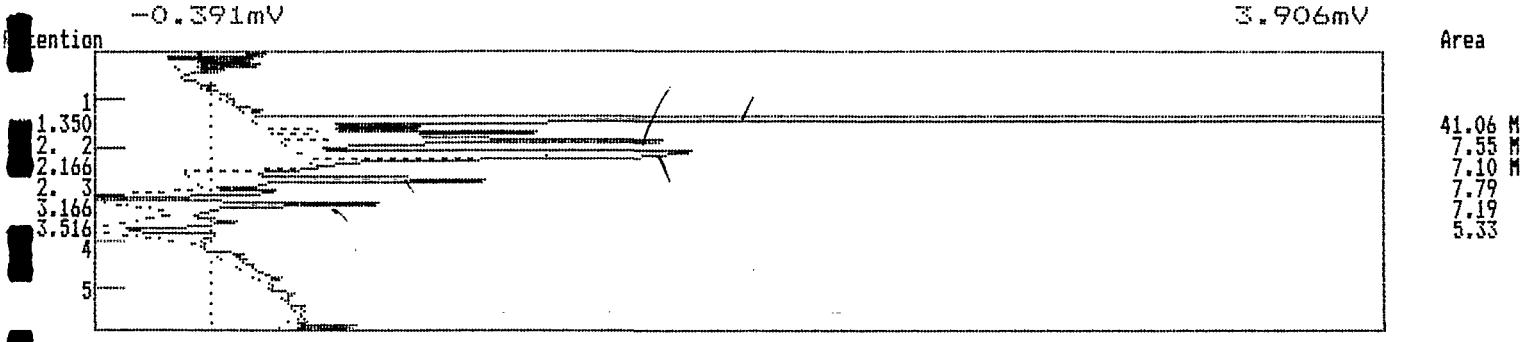


Lab name : IEES
Client : CROWN CITY PLATING
Description : CHANNEL 2 - PID
Data file : CC3GAS1B.CHR (C:\PEAK3\CC3)
Sample : 25 UL CAL GAS STD

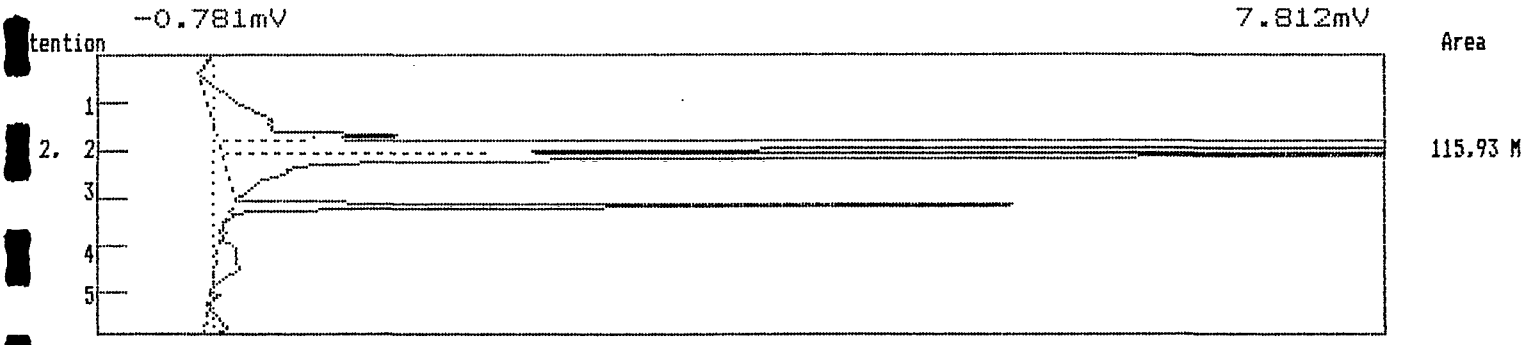


Retention	Area
3.116	63.84
3.700	2.80
	66.64

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3GAS2C.CHR (C:\PEAK3\CC3)
Sample : 10 UL CAL GAS STD

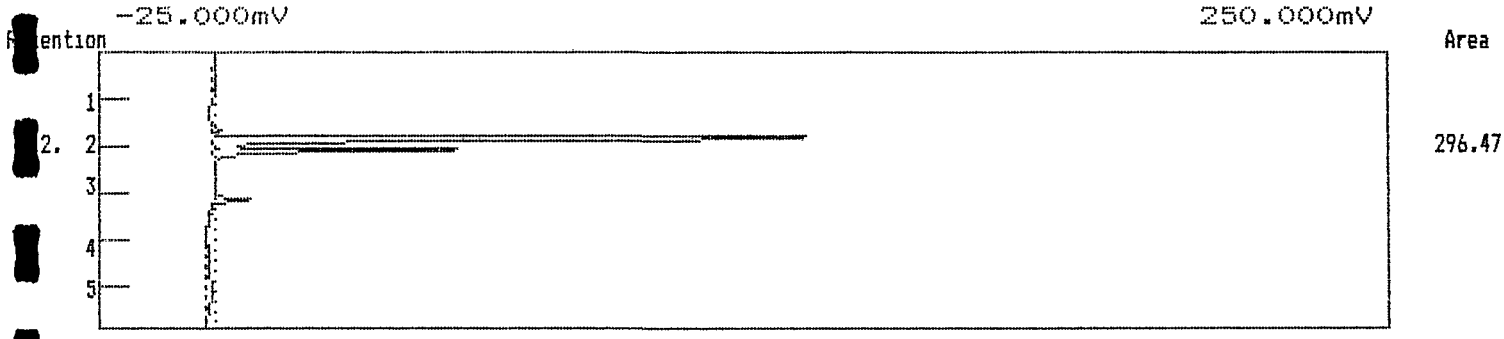


Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 4 - PID
Data file : CC3GAS2D.CHR (C:\PEAK3\CC3)
Sample : 10 UL CAL GAS STD



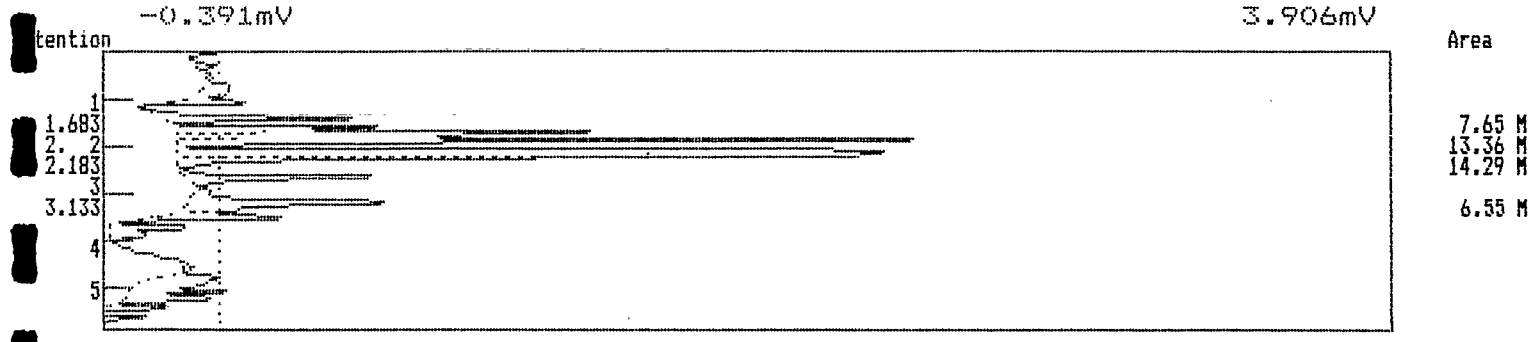
Retention	Area
1.800	467.52 M
2.050	115.93 M
	583.46

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 4 - PID
Data file : CC3GAS3D.CHR (C:\PEAK3\CC3)
Sample : 15 UL CAL GAS STD



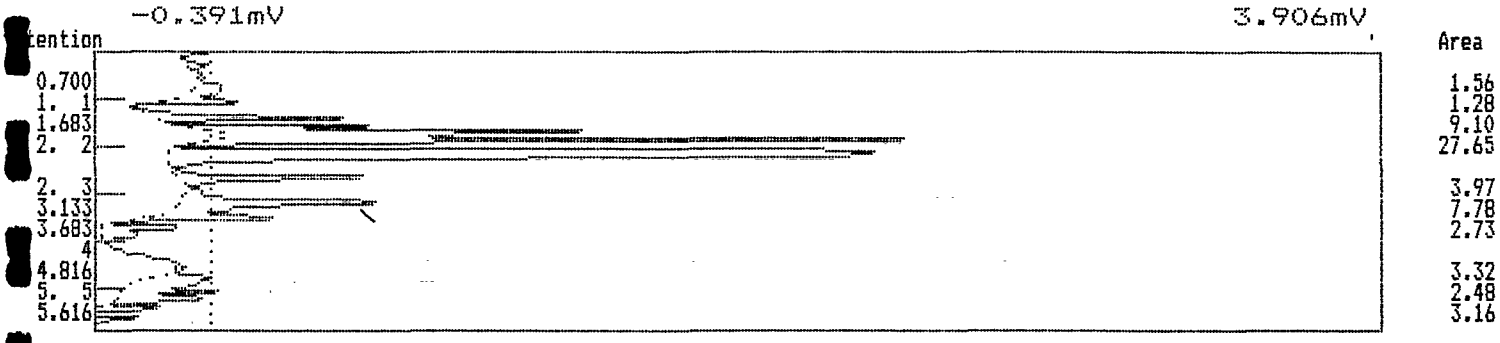
Retention	Area
1.800	894.10
2.050	296.47
	1190.57

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3GAS3C.CHR (C:\PEAK3\CC3)
Sample : 15 UL GAS CAL STD



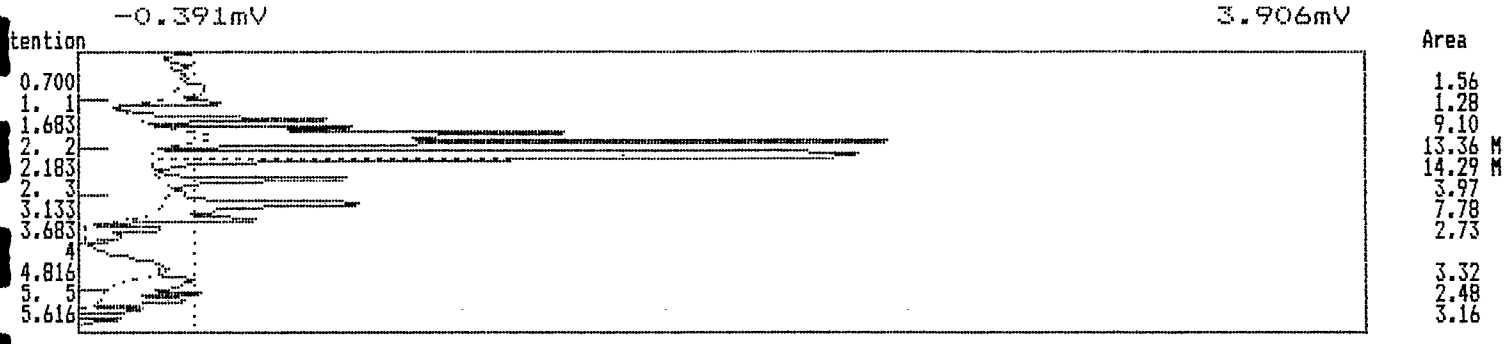
Retention	Area
1.683	7.65 M
1.816	15.42 M
2.066	13.36 M
2.183	14.29 M
3.133	6.55 M
	57.27

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3GAS3C.CHR (C:\PEAK3\CC3)
Sample : 15 UL GAS CAL STD



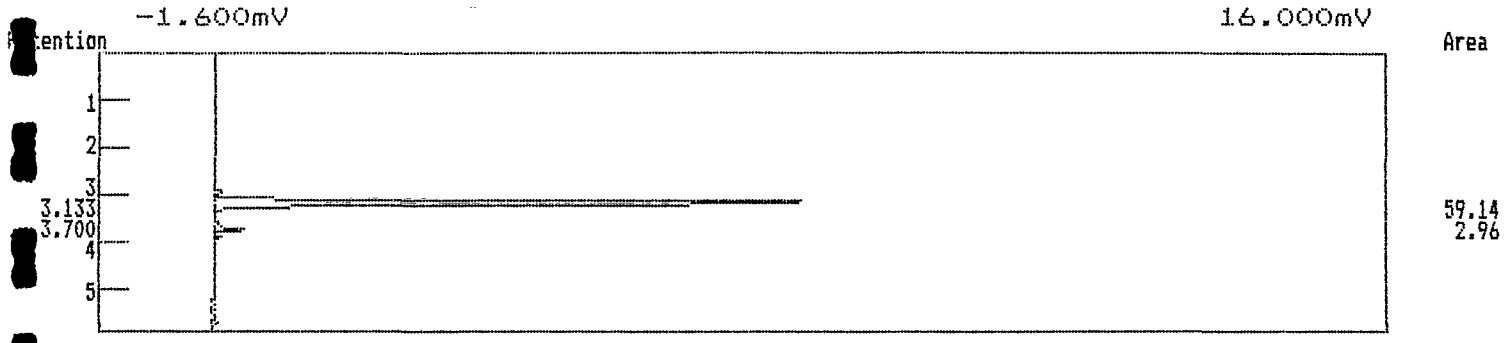
Retention	Area
0.700	1.56
1.050	1.28
1.366	4.76
1.683	9.10
1.816	13.70
2.066	27.65
2.616	3.97
3.133	7.78
3.500	2.46
3.683	2.73
4.816	3.32
5.083	2.17
5.200	2.48
5.400	1.99
5.616	3.16
6.433	1.97
	90.08

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3GAS3C.CHR (C:\PEAK3\CC3)
Sample : 15 UL GAS CAL STD



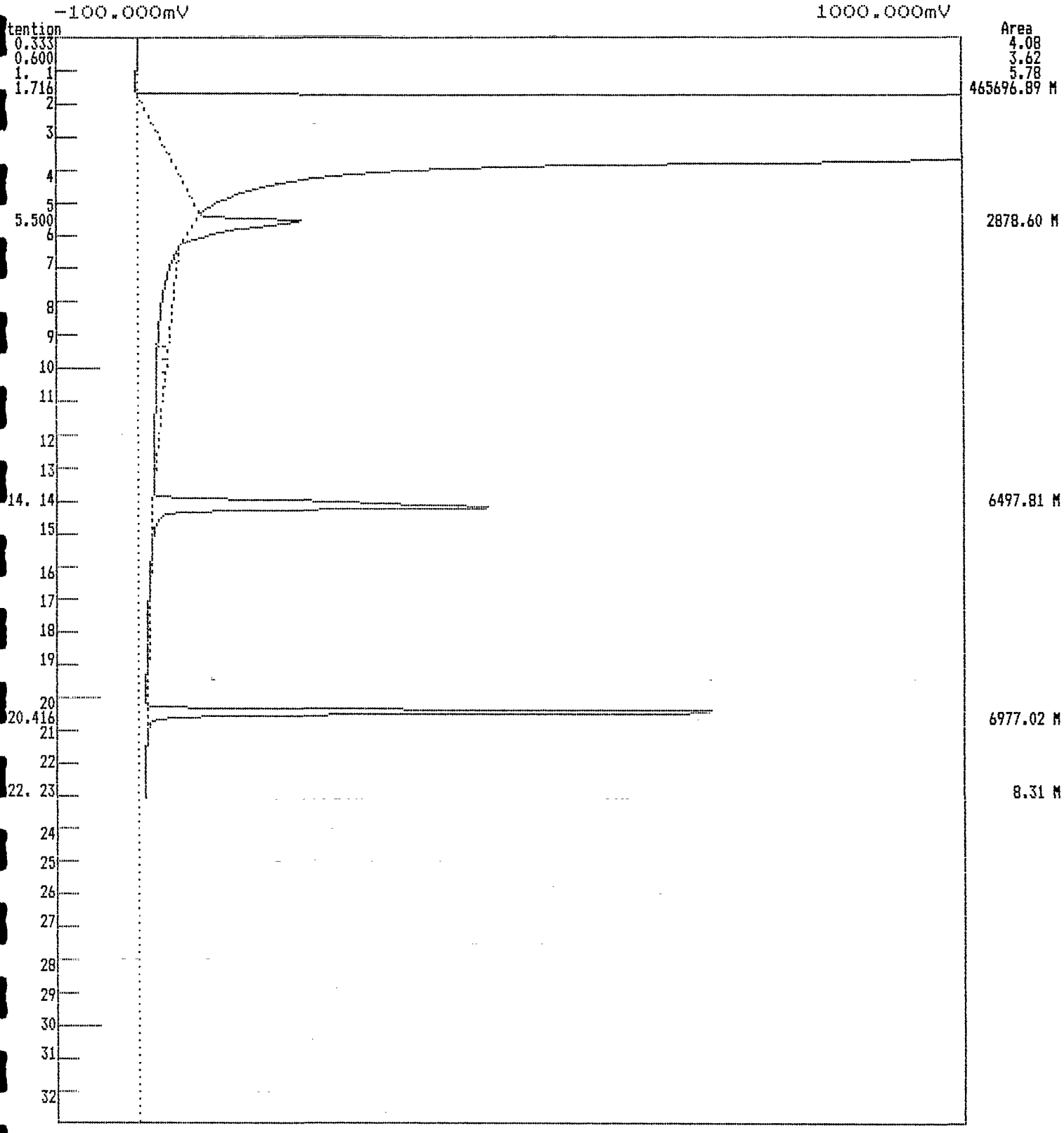
Retention	Area	
0.700	1.56	
1.050	1.28	
1.366	4.76	
1.683	9.10	
1.816	13.70	
2.066	13.36	M
2.183	14.29	M
2.616	3.97	
3.133	7.78	
3.500	2.46	
3.683	2.73	
4.816	3.32	
5.083	2.17	
5.200	2.48	
5.400	1.99	
5.616	3.16	
6.433	1.97	
	90.08	

Lab name : IEES
Client : CROWN CITY PLATING
Description : CHANNEL 2 - PID
Data file : CC3GAS3B.CHR (C:\PEAK3\CC3)
Sample : 15 UL CAL GAS STD



Retention	Area
3.133	59.14
3.700	2.96
	62.10

Lab name : IEES
Client : CROWN CITY
Description : CHANNEL 3 - FID
Data file : CC3SURRC.CHR (C:\PEAK3\CC3)
Sample : 5 UL SURROGATE MIX



Retention	Area
0.016	1.11
0.333	4.08
0.600	3.62
0.966	1.88