

BASELINE

ENVIRONMENTAL CONSULTING

16 October 1994
S9171-CO

Ms. Michele Heffes, Esq.
PORT OF OAKLAND
Legal Department
530 Water Street
Oakland, CA 94607

Subject: Analytical Results for Soil Sampling 4 October 1994 at Seabreeze Site, Oakland

Dear Ms. Heffes:

At your request, BASELINE collected ten soil samples from five locations around the former tank location south of the former power plant at the Seabreeze site in Oakland (Figure 1). The purpose of the sampling activities was to ascertain whether the soil quality had been affected by past releases from the tank.

Soil samples were collected using a hollow-stem auger drill rig. A 2.5-inch split spoon sampler was fitted with six-inch stainless steel sampling tubes that were pounded through the hollow-stem with a 140-pound hammer to the desired sampling depth. Once the split-spoon sampler was retrieved the sampling tubes were capped with teflon sheeting, capped with a plastic cap, taped with silicon tape, labeled, and placed in a cooled container prior to submittal to Curtis and Tompkins Laboratory for analysis. The samples were analyzed for petroleum hydrocarbons, quantified as diesel, motor oil, and Bunker C fuel. The analytical results are in the attached laboratory report. During drilling, one hole was abandoned due to refusal; the refusal location was between Boring 16A and 16B (Figure 1).

Augers arrived clean to the site. Between each sampling location, clean, steam-cleaned augers were used. The soil sampler was cleaned between each sampling event in trisodium phosphate followed by a DI water rinse. Soil cuttings and decontamination water was retained on-site in 55-gallon drums. Each hole was filled with grout following sampling activities.

Should you have any questions or need additional information, please do not hesitate to contact us at your convenience.

Sincerely,


Yane Nordhav

Principal

Reg. Geologist No. 4009

YN:S9171L1.016

cc: Jonathan Redding, Esq. (with enclosure)

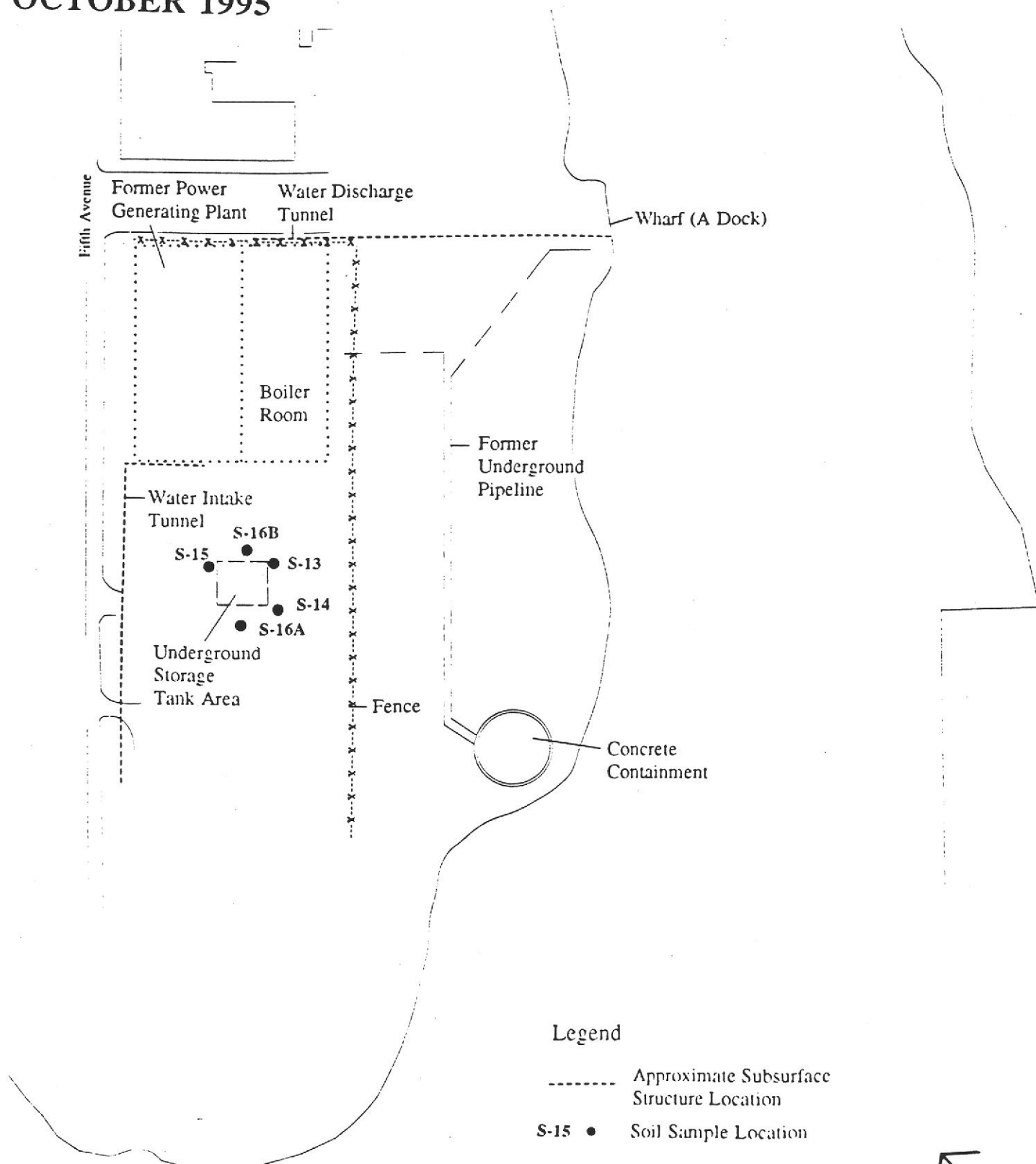
5900 Hollis Street, Suite D • Emeryville, CA 94608

TEL: (510) 420-8686 • FAX: (510) 420-1707 • INTERNET:baseline@crl.com

Emeryville • Petaluma • San Francisco

SOIL SAMPLING LOCATIONS OCTOBER 1995

Figure 1



Note: Soil samples were collected on 4 October 1995 at depths from 4.0 feet to 9.0 feet bgs and analyzed for Total Petroleum Hydrocarbons (TPH) as diesel, motor oil, and Bunker C. A summary of the TPH data is shown on Table 1.





Curtis & Tompkins, Ltd., Analytical Laboratories. Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Baseline Environmental
5900 Hollis Street
Suite D
Emeryville, CA 94608

Date: 11-OCT-95
Lab Job Number: 122930
Project ID: S9171-CO
Location: Seabreeze

Reviewed by: _____

Reviewed by: _____

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LABORATORY NUMBER: 122930
CLIENT: BASELINE ENVIRONMENTAL
PROJECT ID: S9171-CO
LOCATION: SEABREEZE

DATE SAMPLED: 10/04/95
DATE RECEIVED: 10/04/95
DATE EXTRACTED: 10/06/95
DATE ANALYZED: 10/07-10/95
DATE REPORTED: 10/11/95
BATCH NO: 23717

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

(#2?)

(higher diesel
50.6)

LAB ID	SAMPLE ID	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	BUNKER C RANGE (mg/Kg)
122930-001	S-15; 6.5-7.0	1,900*	1,300*	**
122930-002	S-15; 8.5-9.0	2,600*	1,000*	**
122930-003	S-13; 4.5-5.0	3,000*	2,500*	**
122930-004	S-13; 6.5-7.0	1,800*	1,400*	**
122930-005	S-14; 5.0-5.5	**	**	420
122930-006	S-14; 7.0-7.5	**	**	530
122930-007	S-16A; 4.0-4.5	2,600*	ND(250)	**
122930-008	S-16A; 6.0-6.5	6,300*	2,000*	**
122930-009	S-16B; 4.5-5.0	**	**	57,000
122930-010	S-16B; 7.0-7.5	4,700*	4,700*	**
METHOD BLANK	N/A	ND(1.0)	ND(25)	ND(25)

ND = Not detected at or above reporting limit; reporting limit indicated in parentheses.

* Sample chromatogram does not resemble hydrocarbon standard.

** Not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY:

LCS RECOVERY, %

112

CHAIN OF CUSTODY RECORD

Collins, Su
 ryville, CA 94608
 420-8686

n-ar Time
 Lab
 BASELINE Contact Person

Normal - DA, TA
 C&T
 Rhadora DelPosa

Project No. **9171-80**
 Project Name and Location **Sea Breeze**
 Analyzers: (Signature) *William K. Lewis*

Sample ID No. Station	Date	Time	Media	Depth	No. of Contain- ers	Analysis								Remarks/ Composite	Dete- tion Limits
						TEH diesel	(TPH with BTX&E)	Oil & Grease	Motor Oil	PNAS	Title 22 Metals	Total Lead	Bunke "C"		
15; 6.5-7.0	10-4-95	9:45	Soil	6.5-7.0	1	X		Y				X			
15; 8.5-9.0		9:53	Soil	8.5-9.0	1	X		X				X			
13; 4.5-5.0		10:32		4.5-5.0	1	X		X				X			
13; 6.5-7.0		10:38		6.5-7.0	1	X		X				X			
14; 5.0-5.5		10:59		5.0-5.5	1	X		X				X			
14; 7.0-7.5		11:10		7.0-7.5	1	X		X				X			
6a; 4.0-4.5		11:31		4.0-4.5	1	X		X				X			
6a; 6.0-6.5		11:35		6.0-6.5	1	X		X				X			
6b; 4.5-5.0		11:40		4.5-5.0	1	X		X				X			
6b; 7.0-7.5		11:56		7.0-7.5	1	X		X				X		High concentration of Bunke "C"	

Inquished by: (Signature) <i>William K. Lewis</i>	Date / Time 10-4-95/	Received by: (Signature) <i>Rita Hoch</i>	Date / Time 10/4/95 1900	Conditions of Samples Upon Arrival at Laboratory:
Inquished by: (Signature) <i>Glenn [Signature]</i>	Date / Time 10/4/95	Received by: (Signature)	Date / Time	Remarks:
Inquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	

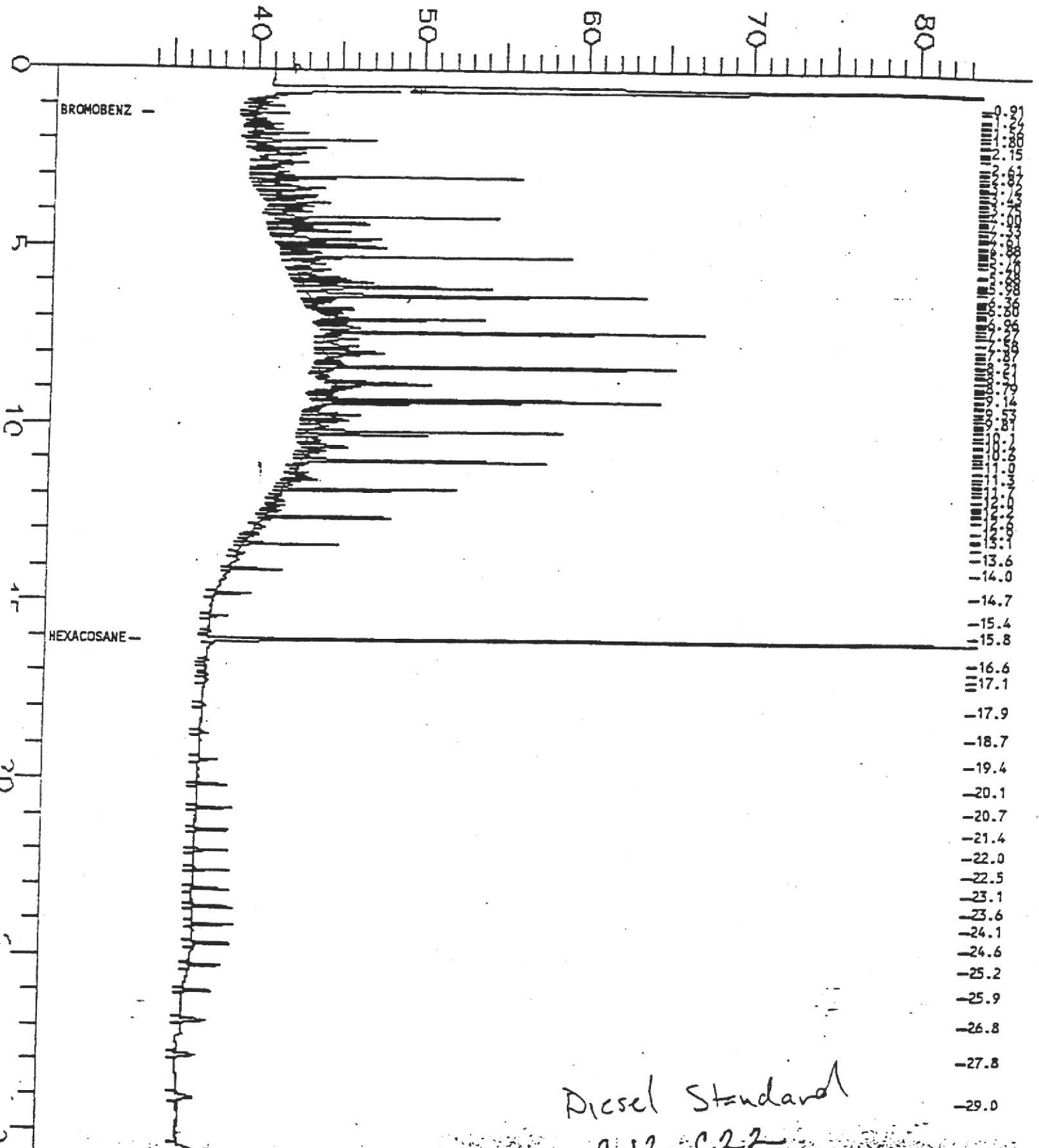
Sample Name: diesel 513mg/l
FileName: G:\GC11\CHB\2918003.raw
Met id: GC11DUAL.ins
Sta: Time: 0.00 min
Scale Factor: -1

End Time: 31.92 min
Plot Offset: 34 mV

Sample #: 94ms8368
Date: 10/28/94 12:02 PM
Time of Injection: 10/18/94 01:30 PM
Low Point: 33.72 mV
Plot Scale: 50 mV
High Point: 83.72 mV

Page 1 of 1

Response [mV]



Diesel Standard

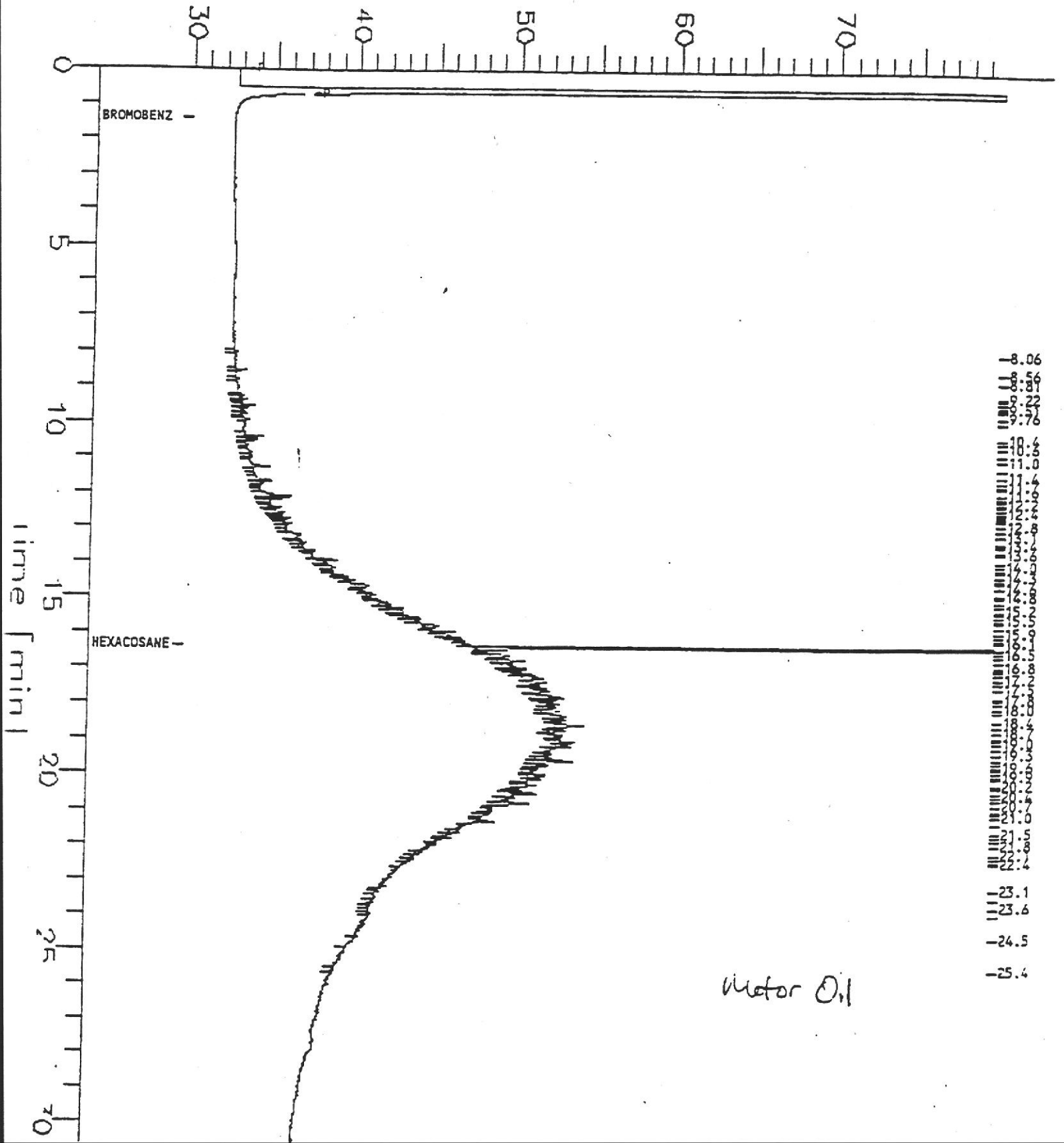
112-C22

Sample Name : Motor oil 1140 mg/L
FileName : G:\GC11\CHA\015a004.raw
Method : GC11DUAL.ins
Start Time : 0.00 min
Scale Factor : -1

End Time : 31.92 min
Plot Offset : 30 mV

Sample #: 94ws6545
Date : 1/27/94 02:40 PM
Time of Injection: 1/15/94 05:16 PM
Low Point : 29.90 mV
Plot Scale: 50 mV
High Point : 79.90 mV

Response [mV]



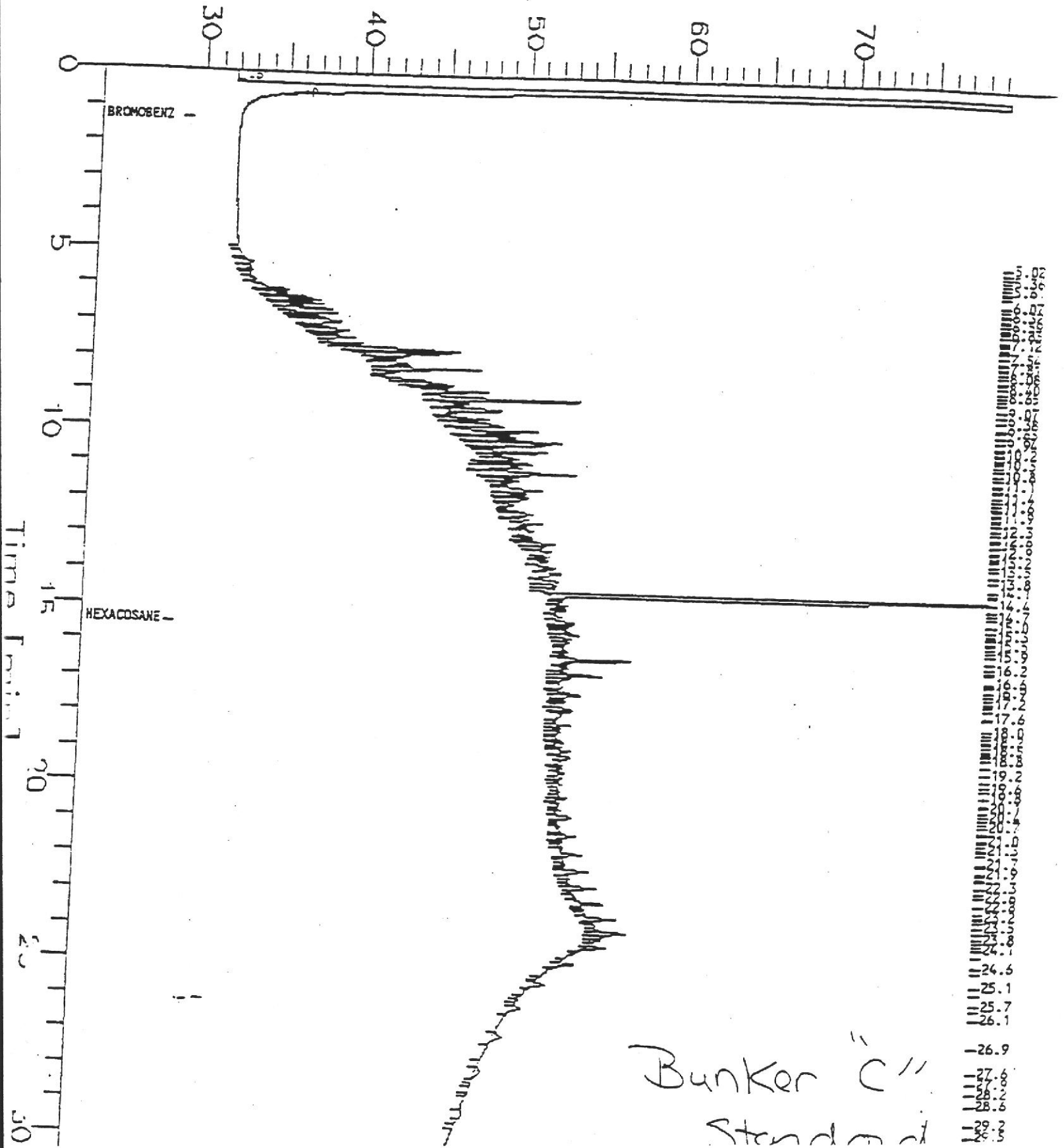
8.06
9.98
10.98
11.98
12.98
13.98
14.98
15.98
16.98
17.98
18.98
19.98
20.98
21.98
22.98
23.98
24.98
25.4
26.4
27.4
28.4
29.4
30.4
31.4
32.4
33.4
34.4
35.4
36.4
37.4
38.4
39.4
40.4
41.4
42.4
43.4
44.4
45.4
46.4
47.4
48.4
49.4
50.4
51.4
52.4
53.4
54.4
55.4
56.4
57.4
58.4
59.4
60.4
61.4
62.4
63.4
64.4
65.4
66.4
67.4
68.4
69.4
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71.4
72.4
73.4
74.4
75.4
76.4
77.4
78.4
79.4
80.4
81.4
82.4
83.4
84.4
85.4
86.4
87.4
88.4
89.4
90.4
91.4
92.4
93.4
94.4
95.4
96.4
97.4
98.4
99.4
100.4

Sample Name : OMM BUNKER 1250MG/L
 FileName : g:\gc15\cha\199A053.raw
 Method : TEH_CHA.ins
 Start Time : 0.00 min
 Scale Factor : -1

End Time : 31.92 min
 Plot Offset : 29 mV

Sample #: 95W2S0616
 Date : 7/20/95 9:56 PM
 Time of Injection: 7/20/95 9:22 PM
 Low Point : 29.25 mV
 High Point : 79.25 mV
 Plot Scale: 50 mV

Response [mV]



Bunker "C"
 Standard

Sample Name : 122930-001 50:50
File Name : g:\gc11\cha\282A028.raw
Method : GC11_CHA.ins
Start Time : 0.00 min
Scale Factor : -1

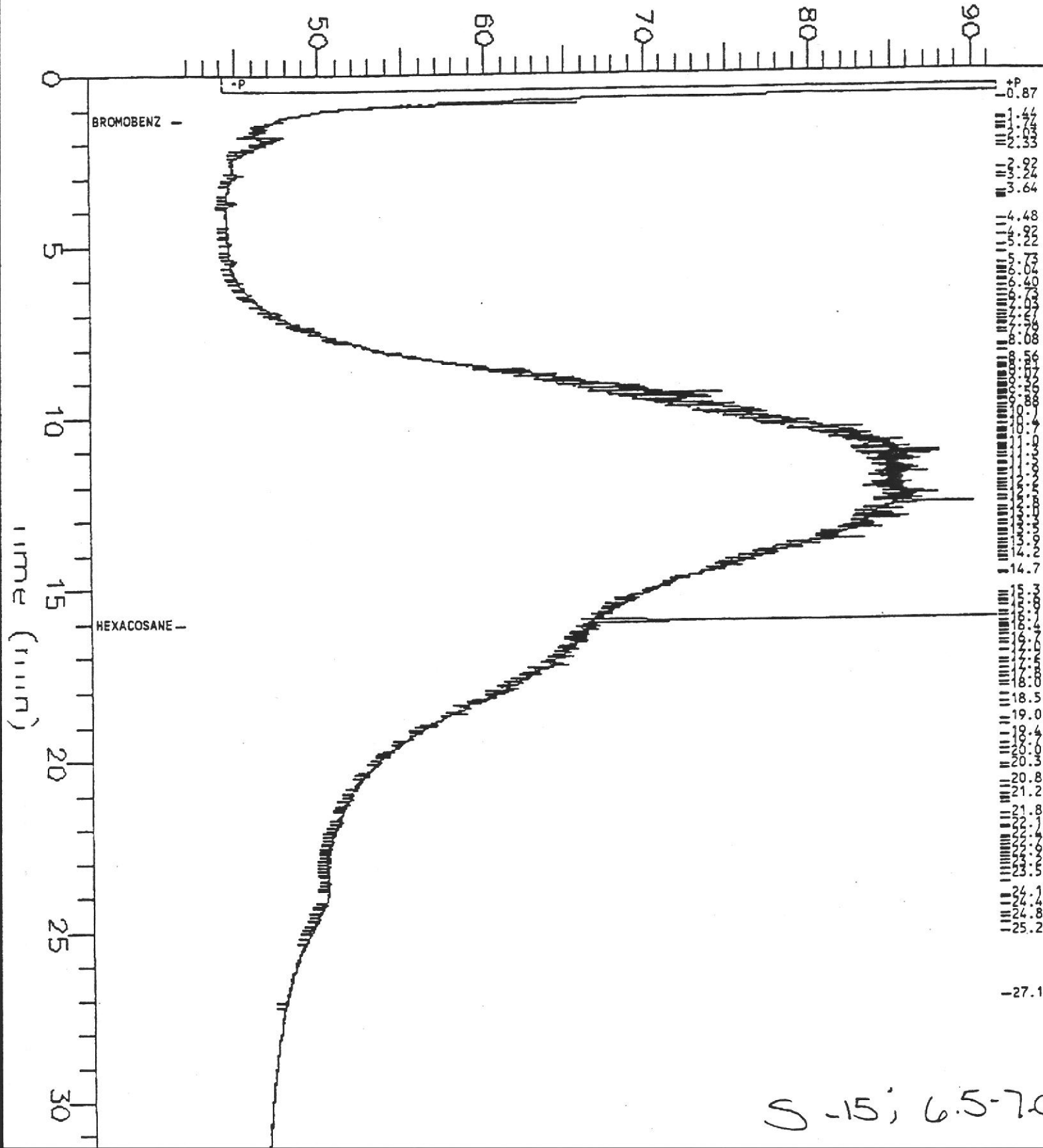
End Time : 31.92 min
Plot Offset : 42 mV

Sample #: 23717
Date : 10/10/95 05:51 AM
Time of Injection: 10/10/95 05:18 AM
Low Point : 41.66 mV
Plot Scale: 50 mV

Page 1 of 1

High Point : 91.66 mV

Response (mV)



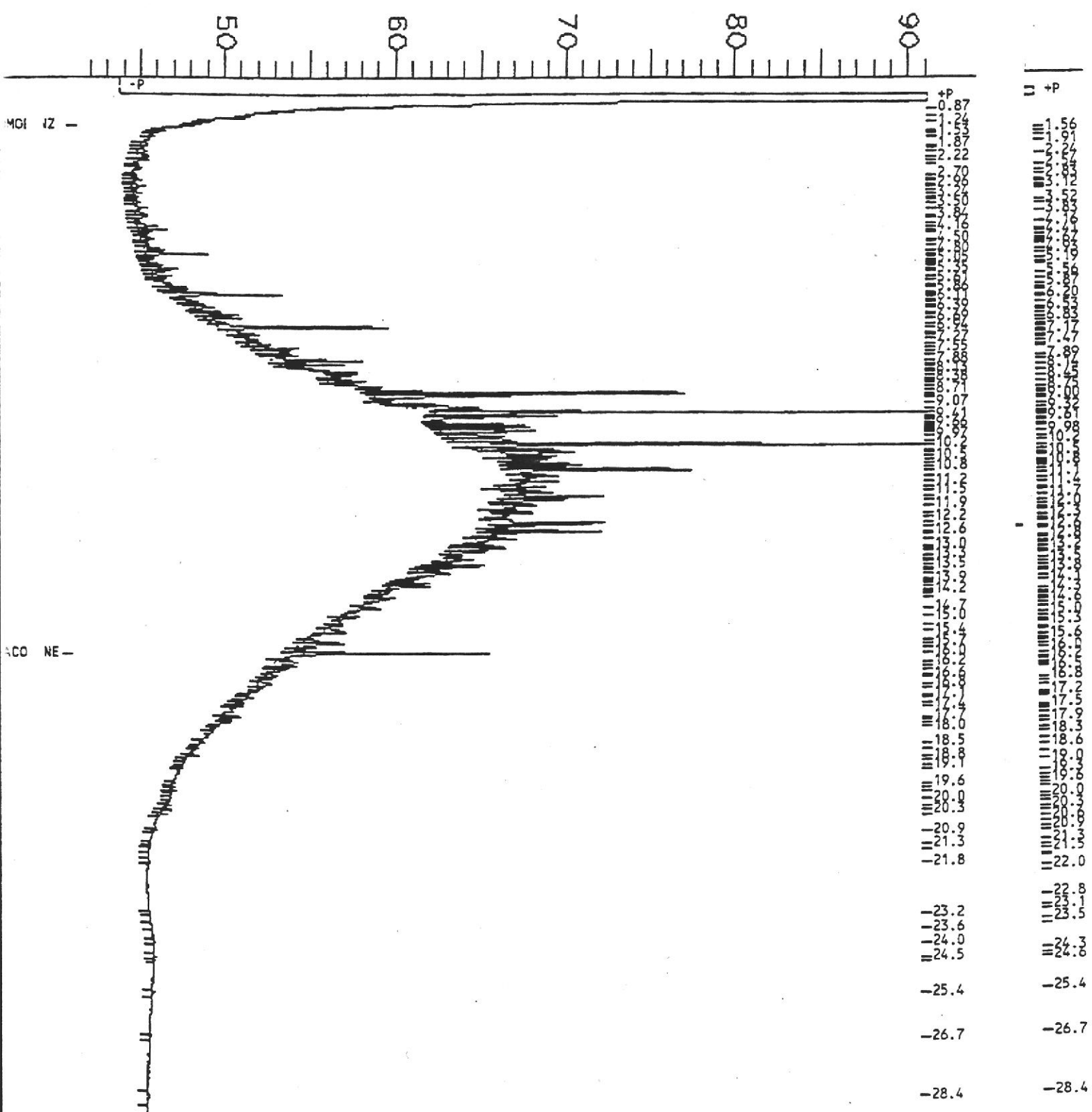
S-15; 6.5-7.0

122930-002 50:100
g:\gc11\cha\282A018.raw
GC1 CHA.ins
0.0 min
-1

Sample #: 23717
Date : 10/9/95 10:40 PM
Time of Injection: 10/9/95 10:07 PM
Low Point : 41.17 mV
Plot Scale: 50 mV
High Point : 91.17 mV

Page 1 of 1

Response (mV)



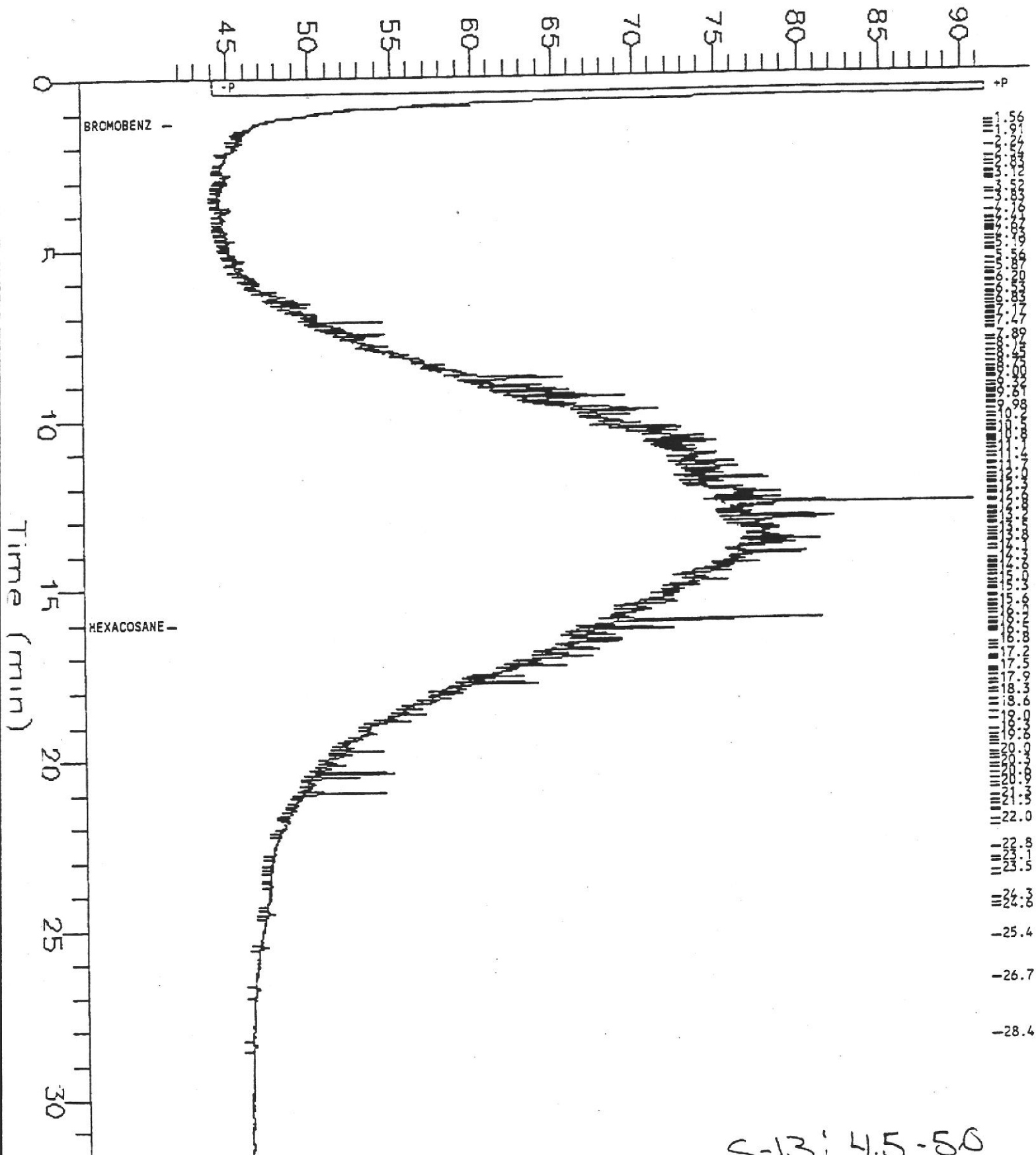
Sample Name : 122930-003 50:100
File Name : g:\gc11\cha\282A025.raw
Method : GC11_CHA.ins
Injection Time : 0.00 min
Scale Factor : -1

End Time : 31.92 min
Plot Offset: 42 mV

Sample #: 23717
Date : 10/10/95 03:43 AM
Time of Injection: 10/10/95 03:09 AM
Low Point : 41.58 mV
Plot Scale: 50 mV

Page 1 of 1
High Point : 91.58 mV

Response (mV)



C-13: 4.5-50

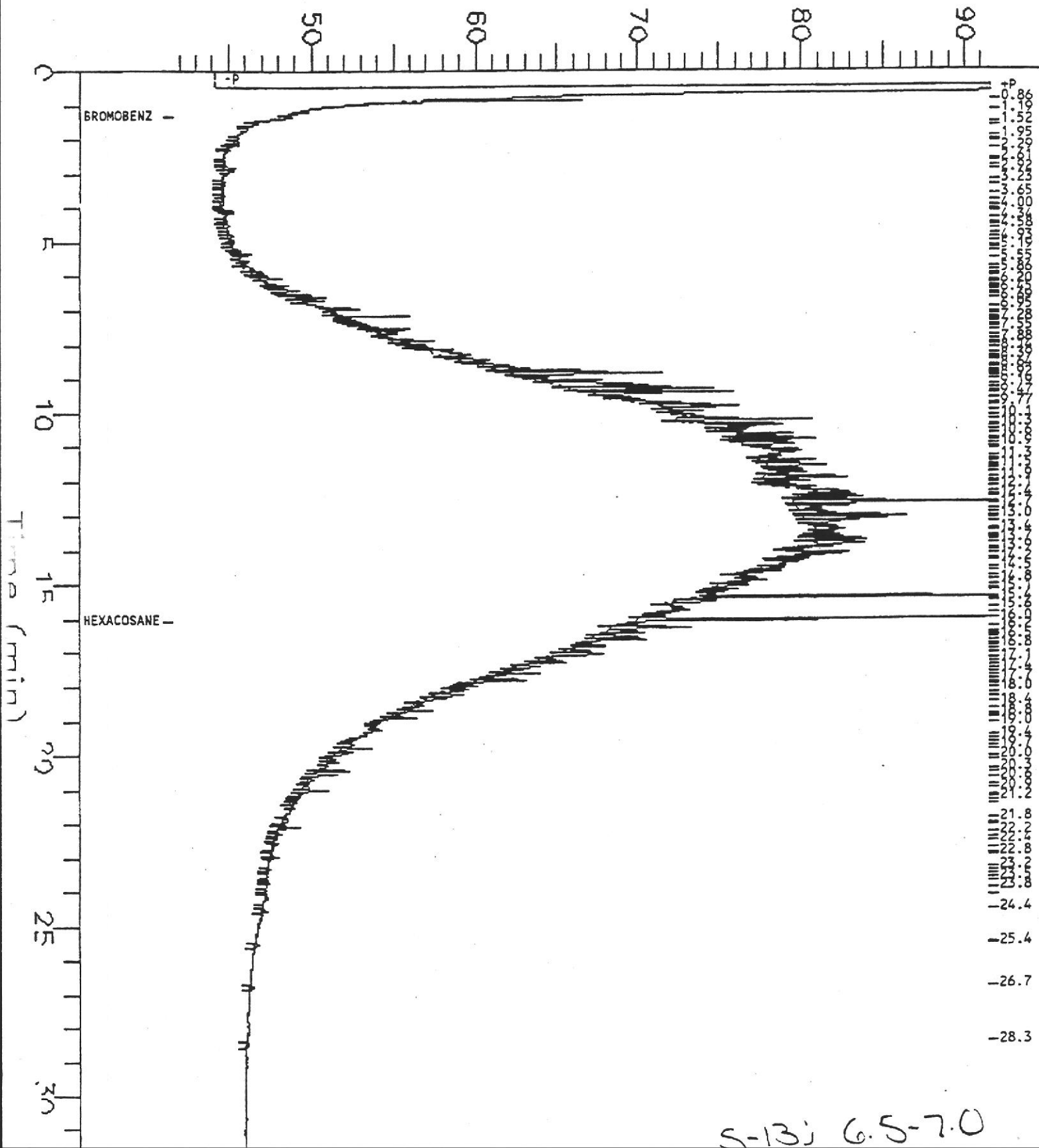
Sample Name : 122930-004 50:50
File Name : g:\gc11\cha\282A026.raw
Method : GC11_CHA.ins
Start Time : 0.00 min
Scale Factor : -1

End Time : 31.92 min
Plot Offset : 42 mV

Sample #: 23717
Date : 10/10/95 04:26 AM
Time of Injection: 10/10/95 03:52 AM
Low Point : 41.63 mV
Plot Scale: 50 mV

Page 1 of 1
High Point : 91.63 mV

Response (mV)



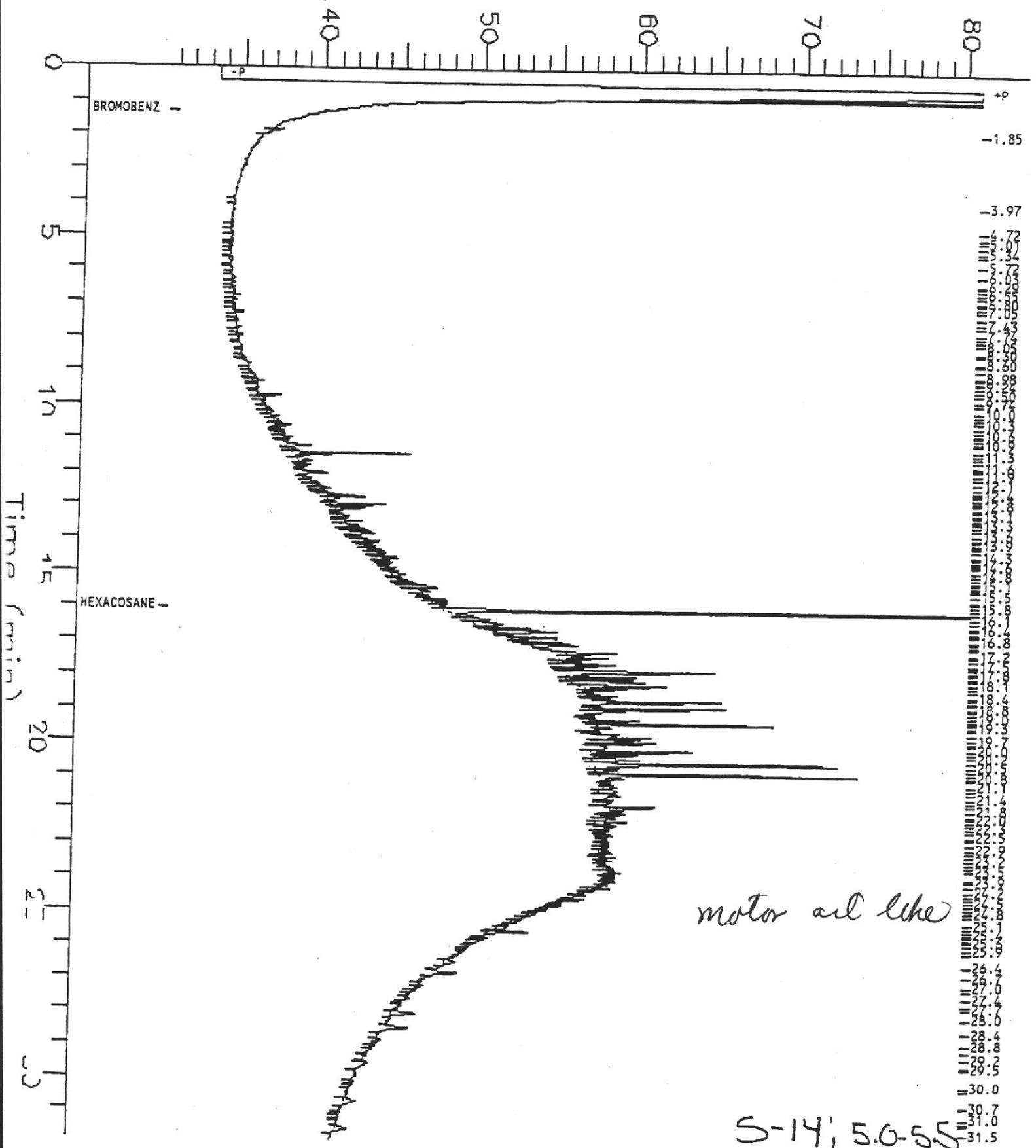
S-13; 6.5-7.0

Sample Name : 122930-005 50:5
File Name : g:\gc11\cha\278A094.raw
Method : GC11_CHA.ins
Start Time : 0.00 min
Scale Factor: -1

End Time : 31.92 min
Plot Offset: 31 mV

Sample #: 23717
Date : 10/8/95 11:05 PM
Time of Injection: 10/8/95 10:31 PM
Low Point : 30.90 mV
Plot Scale: 50 mV
High Point : 80.90 mV

Response (mV)

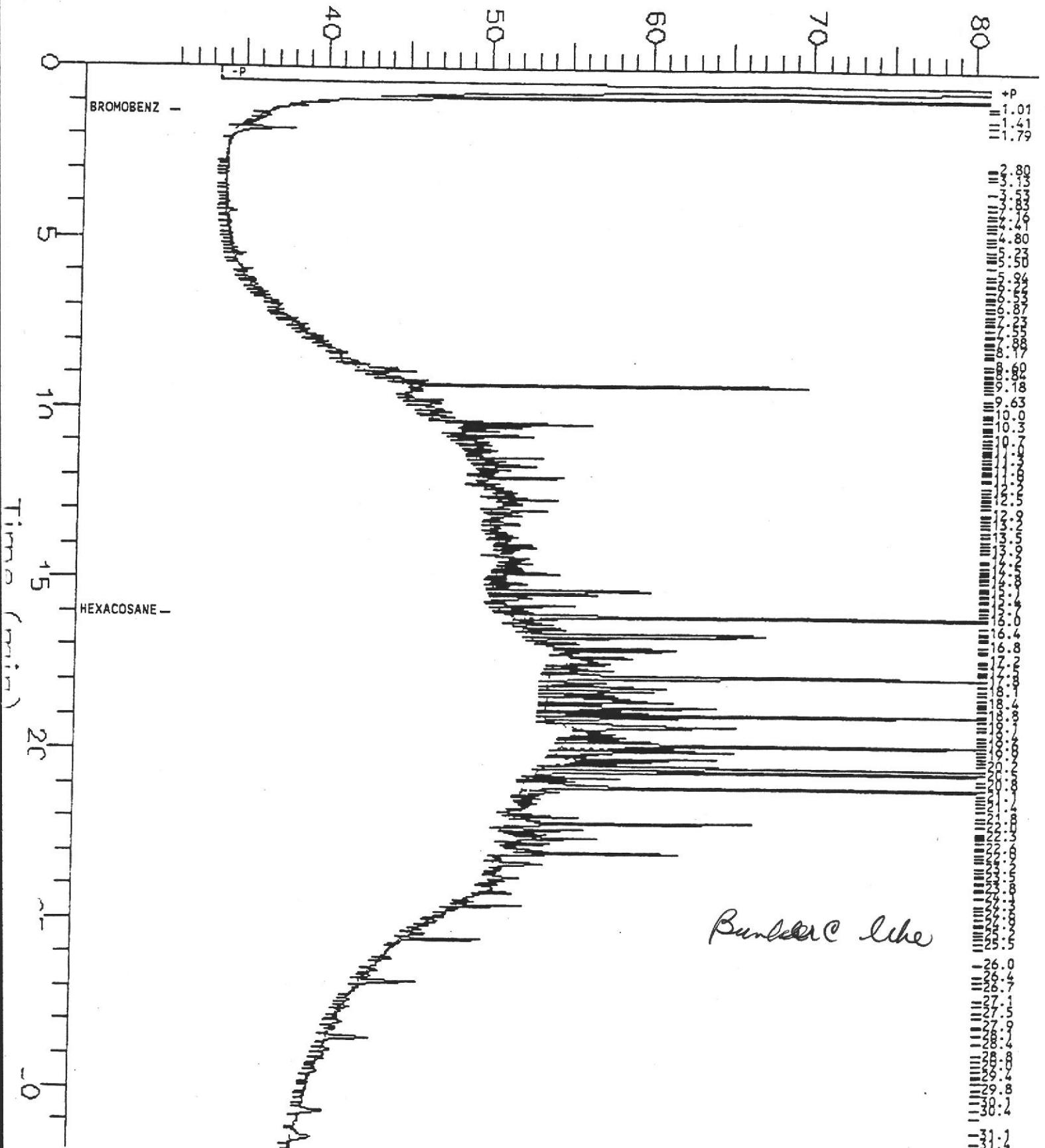


Sample Name : 122930-006 50:5
File Name : g:\gc11\cha\278A054.raw
Method : GC11_CHA.ins
Start Time : 0.00 min
Scan Factor : -1

End Time : 31.92 min
Plot Offset: 31 mV

Sample #: 23717
Date : 10/7/95 05:47 PM
Time of Injection: 10/7/95 05:13 PM
Low Point : 30.86 mV
High Point : 80.86 mV
Plot Scale: 50 mV

Response (mV)



Bunker like

S-14-703

Sample Name : 122930-007 50:50
File Name : g:\gc11\cha\282A019.raw
Method : GC11_CHA.ins
Start Time : 0.00 min
Scale Factor : -1

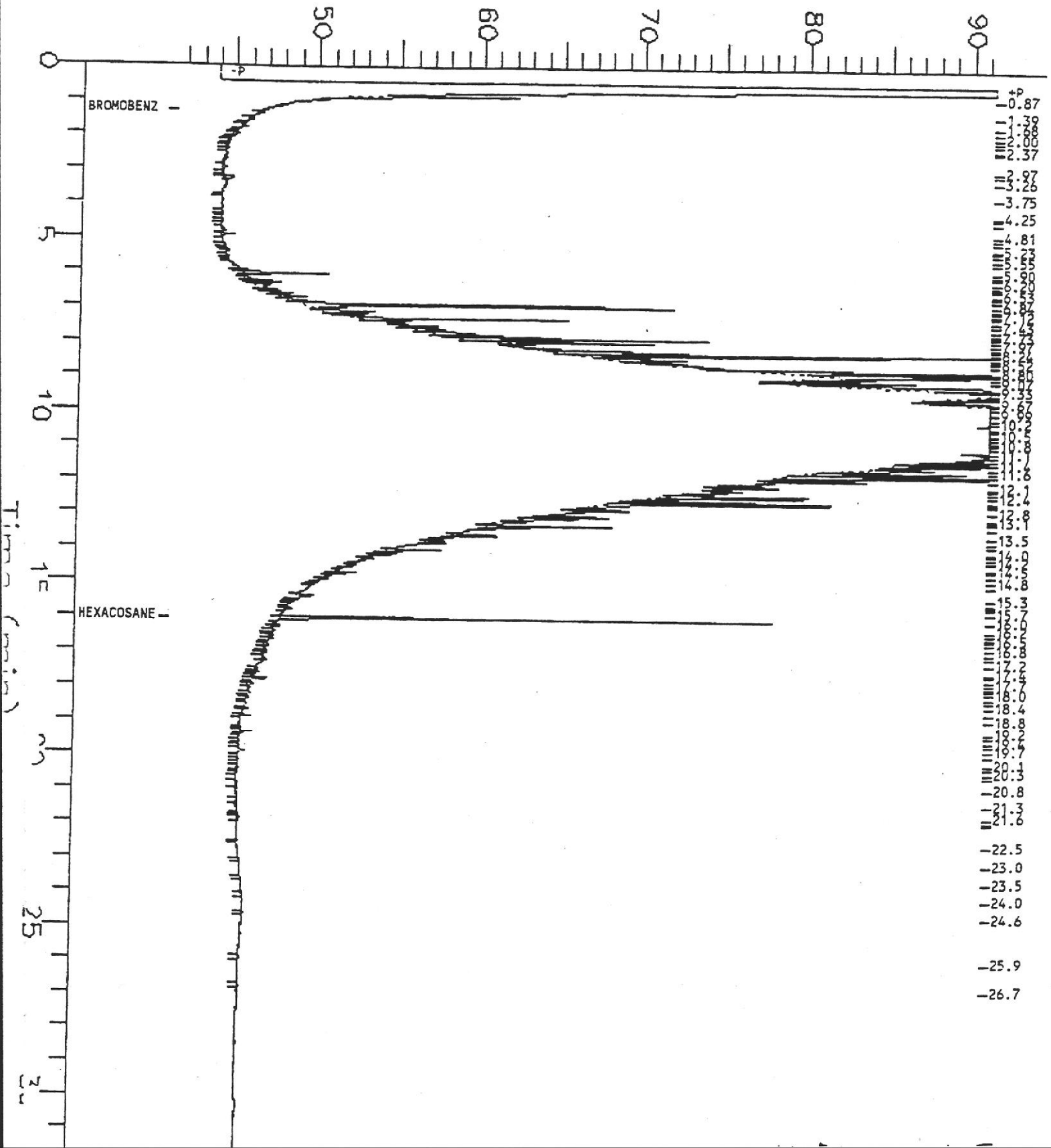
End Time : 31.92 min
Plot Offset : 41 mV

Sample #: 23717
Date : 10/9/95 11:23 PM
Time of Injection: 10/9/95 10:50 PM
Low Point : 41.36 mV
Plot Scale: 50 mV

Page 1 of 1

High Point : 91.36 mV

Response (mV)



Sample Name : 122930-008 50:250
fileName : g:\gc11\cha\282A020.raw
ew d : GC11_CHA.ins
ta Time : 0.00 min
cale Factor : -1

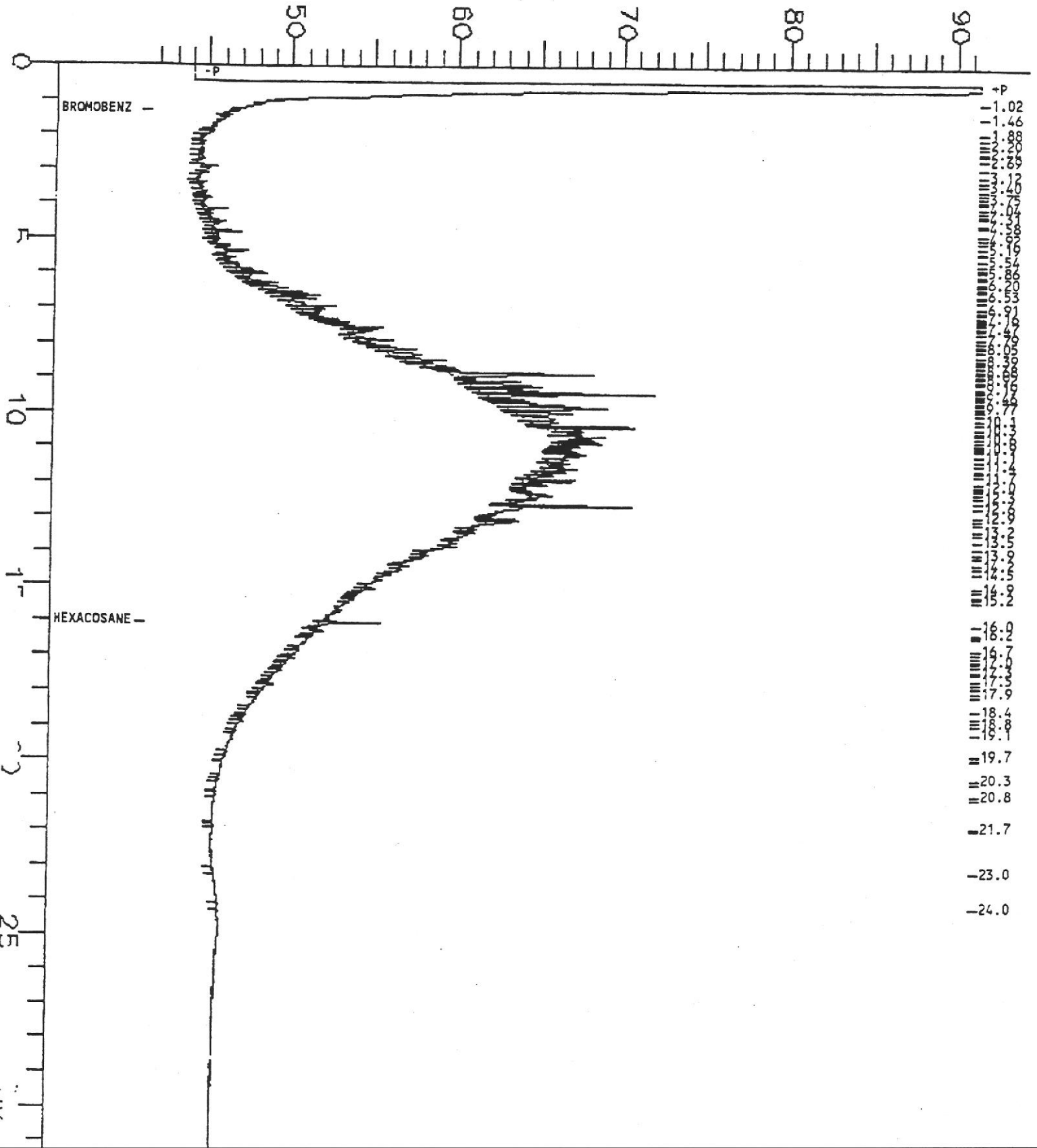
End Time : 31.92 min
Plot Offset: 42 mV

Sample #: 23717
Date : 10/10/95 12:06 AM
Time of Injection: 10/9/95 11:33 PM
Low Point : 41.45 mV
Plot Scale: 50 mV

Page 1 of 1

High Point : 91.45 mV

Response (mV)

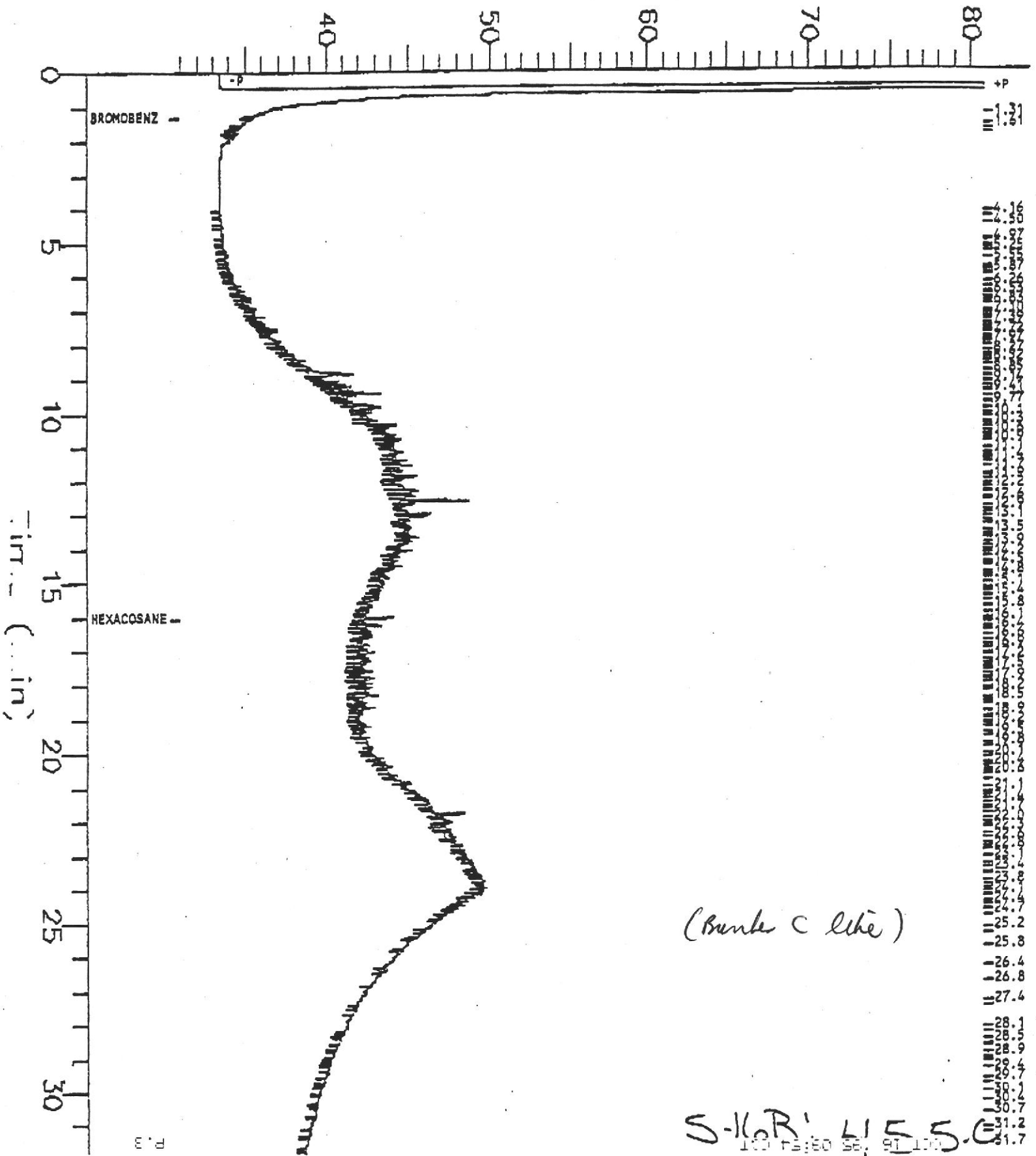


Sample Name : 122930-004 50:1000
File Name : g:\gc1\cha\278A053.raw
Method : GC11_CHA.ins
Start Time : 0.00 min
Scale Factor : -1

End Time : 31.92 min
Plot Offset : 31 mV

Sample #: 23717
Date : 10/7/95 05:04 PM
Time of Injection: 10/7/95 04:30 PM
Low Point : 30.88 mV
Plot Scale: 50 mV

Response (mV)



(Bunker C like)

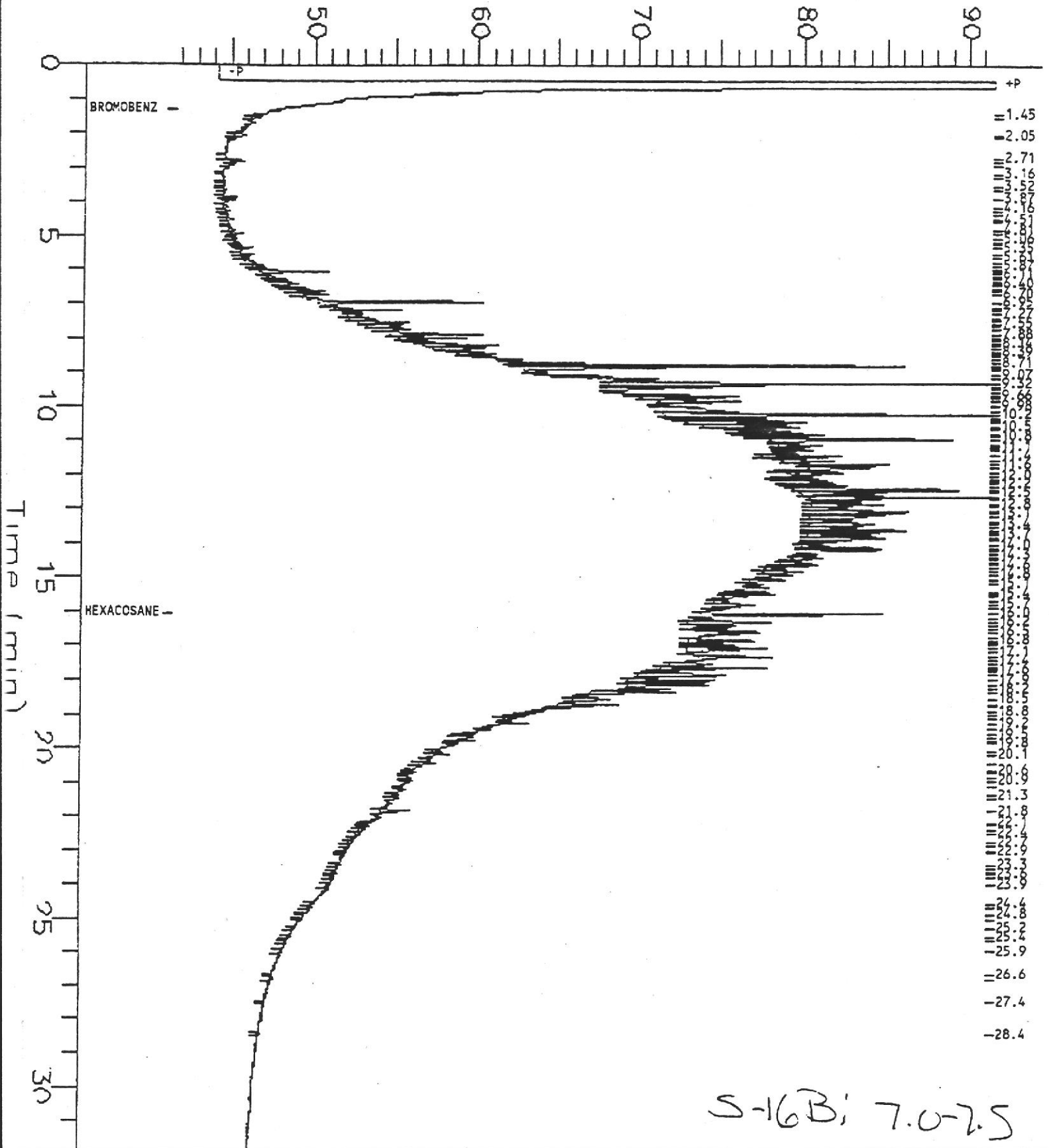
S-KOR 4155.0

Sample Name : 12293G-010 50:125
FileName : g:\gc11\cha\282A027.raw
Method : GC11_CHA.ins
Sta : Time : 0.00 min
Sca : Factor : -1

End Time : 31.92 min
Plot Offset: 42 mV

Sample #: 23717
Date : 10/10/95 05:09 AM
Time of Injection: 10/10/95 04:35 AM
Low Point : 41.64 mV
High Point : 91.64 mV
Plot Scale: 50 mV

Response (mV)



S-16B; 7.0-7.5

DRILLING LOG

Location	Seabreeze, 280 6th Avenue, Oakland	Boring no.	S-13
Driller	Gregg Drilling	Project no.	S9171-C0
Method	Hollow-stem auger	Date	10/4/95
Logger	WKS Datum _____	Bore size	4 inches
		Casing size	_____

Depth (ft.)	Graphic	Lithology	Notes
0			
	GW	BASEROCK gravel	
1			
	SW	Yellowish-brown SAND, fine to medium grained, medium-dense, damp (Fill)	
2			7-14-10
3			
4		Wood pieces (shoring?) at 4.75 feet	
5	CH	Dark greenish-gray silty CLAY, high plasticity, rootlets, wet Bay mud	
6			5-7-7
7		Total depth = 7.0 feet	
8			
9			
10			

DRILLING LOG

Location	Seabreeze, 280 6th Avenue, Oakland	Boring no.	S-14
Driller	Gregg Drilling	Project no.	S9171-C0
Method	Hollow-stem auger	Date	10/4/95
Logger	WKS Datum _____	Bore size	4 inches
		Casing size	_____

Depth (ft.)	Graphic	Lithology	Notes
0			
1	GW	BASEROCK gravel	
2		Yellowish-brown SAND, fine to medium grained, medium-dense, damp (Fill)	
3	SW		
4		Yellowish-brown/dark-brown, sandy CLAY with gravel, high plasticity, very moist (Fill)	6-8-10
5	CH		4-6-7
6		Very dark-gray to greenish-gray silty CLAY, high plasticity, soft wet Bay mud	
7	CH		4-6-6
8		Total depth = 8.0 feet	
9			
10			

DRILLING LOG

Location	Seabreeze. 280 6th Avenue, Oakland	Boring no.	S-15
Driller	Gregg Drilling	Project no.	S9171-C0
Method	Hollow-stem auger	Date	10/4/95
Logger	WKS Datum _____	Bore size	4 inches Casing size _____

Depth (ft.)	Graphic	Lithology	Notes
0			
1	GW	BASEROCK gravel	
2	SW	Yellowish-brown SAND, fine grained, medium-dense, moist (Fill)	15-20-40
3			
4	GC/CL	Becoming greenish-gray, increase in CLAY content Yellowish-brown, clayey GRAVEL-gravelly CLAY, some sand, subangular to angular clasts, 1/3 to 1.5 inch diameter	
5		Some interbedding greenish-gray SAND (Fill)	12-18-14
6			
7	GP	Yellowish-brown GRAVEL with clay and sand, brick pieces, angular to subangular clasts, 1/2 to 2 inch diameter, wet (Fill)	4-5-5
8	CH	Greenish-gray silty CLAY, high plasticity, very soft, wet Bay mud	2-2-3
9			2-2-3 Petroleum odor in mud
10		Total depth = 10.0 feet	

DRILLING LOG

Location	Seabreeze, 280 6th Avenue, Oakland	Boring no.	S-16A
Driller	Gregg Drilling	Project no.	S9171-C0
Method	Hollow-stem auger	Date	10/4/95
Logger	WKS	Datum	Bore size 4 inches
			Casing size

Depth (ft.)	Graphic	Lithology	Notes
0			
1	GW	BASEROCK gravel	
2	SW	Yellowish-brown SAND, trace of gravel (Fill)	
3			
4	CH	Dark-brown sandy CLAY with gravel, high plasticity, 1/3 to 3/4 inch angular clasts, very moist (Fill)	11-11-15
5	CH	Greenish-gray silty CLAY, high plasticity, rootlets, wet Bay mud	
6			5-6-6
7		Total depth = 6.5 feet	
8			
9			
10			

DRILLING LOG

Location	Seabreeze, 280 6th Avenue, Oakland	Boring no.	S-16B
Driller	Gregg Drilling	Project no.	S9171-C0
Method	Hollow-stem auger	Date	10/4/95
Logger	WKS	Datum	
		Bore size	4 inches
		Casing size	

Depth (ft.)	Graphic	Lithology	Notes
0			
	GW	BASEROCK gravel	
1			
	SW	Yellowish-brown SAND, fine grained, medium-dense, moist (Fill)	
2			
3			
	GC/CL	Very dark-gray to black gravelly CLAY-clayey GRAVEL with sand, 1/3 to 2 inch diameter, very moist	
4			15-12-13
		Brick pieces	
5			Bunker C material in sample at 4.5-5.0 feet
	CH	Very dark-gray silty CLAY. high plasticity, soft, shells and roots. Bay mud	3-6-4
6			
7			3-10-10
8			
		Total depth = 8.0 feet	
9			
10			