EE.

WESTON

DRILLING LOG

WELL NUMBER: 1
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 SE corner
ADDRESS: Fremont, OH
TOTAL DEPTH: 8 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 11 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

EPA Region 5 Records Ctr.
237843

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3					
4		S-53			Dark gray to black silty clay (discolored, oily sludge)
6		S-52			Very black silty clay; some sand and some gravel
7					Heaving occurred in auger, poured water into auger to prevent heaving
8					

Note: Split spoon sample taken at 3' to 5' interval hit wood and no soil was in the spoon. Hole was redrilled ~10 ft. to the south and a sample was taken at the 4' to 6' interval. This is why the first sample # (S-52) is the deeper sample and the second sample # (S-53) is the shallower sample.

* A.S.T.M D1586

SHEET ___ OF ___

WESTON

DRILLING LOG

WELL NUMBER: 2
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 SW corner
ADDRESS: Fremont, OH
TOTAL DEPTH: 8 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 11 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3		S-54			Dark brown sandy clay; wood chips
4					
6		S-55			Gray silty clay
7					
8					Note: No discolored sludge evident

* A.S.T.M D1586

SHEET ___ OF ___

WESTON

DRILLING LOG

WELL NUMBER: 3
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 between S-12 + S-13
ADDRESS: Fremont, OH
TOTAL DEPTH: 8 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 12 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3		S-56			Dark gray sandy clay with black decayed organic matter
4					Discolored, oily (oil went to about 6.5 ft.)
5					
6					Gray silty clay
7		S-57			
8					

* A.S.T.M D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 4
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 between S-~~12~~ + S-13 BS# 8
ADDRESS: Fremont, OH
TOTAL DEPTH: 8 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 12 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3		S-58			Light brown to yellowish sandy clay with some black organic matter
4					
5					
6		S-59			
7					Gray silty clay
8					
					Note: No discolored sludge evident.

* A.S.T.M D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 5
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 between S-7 + S-8
ADDRESS: Fremont, OH
TOTAL DEPTH: 8 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 12 Sept. 87
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3		S-60			Gray sandy clay (Discolored)
4					Reddish brown sandy clay
5					Gray sandy clay w/gravel
6		S-61			
7					Gray silty clay
8					

* A.S.T.M. D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 6
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 S-9
ADDRESS: Fremont, OH
TOTAL DEPTH: 8 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY:
DRILLING METHOD:
DATE DRILLED: 12 Sept
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3		S-62			Very dark gray sandy clay
4					
5					Dark gray silty clay
6		S-63			Discolored material
7					
8					Gray silty Clay

* A.S.T.M D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 7
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 S-14
ADDRESS: Fremont, OH
TOTAL DEPTH: 8 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 12 Sept
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3		S-64			Dark gray and brown sandy clay (very discolored)
4					Reddish brown sandy clay (discolored)
5					Discolored
6		S-65			Gray silty clay (discolored to 7.5 ft.)
7					
8					

* A.S.T.M D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 8
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 between S-15 + S-20
ADDRESS: Fremont, OH
TOTAL DEPTH: 10 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 12 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3					
4		S-66			black silty clay, very oily
					discolored
6		S-67			
7					Clay (discolored)
8		S-68			Gray silty clay (discolored)
9					Clay with some silt
10					

* A.S.T.M D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 9
OWNER: Greiner's Lagoon
LOCATION: Lagoon #4 between S-5 + S-10
ADDRESS: Fremont, OH
TOTAL DEPTH: 10 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Kecl
DRILLING METHOD:
DATE DRILLED: 12 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown clay cap
2					
3		S-69			Gray sandy, silty clay, some gravel (discolored)
4					discolored
5					Brown sandy clay (discolored)
6		S-70			wood
7					Gray sandy, silty clay (discolored)
8		S-71			Clay with some sand (discolored)
9					Gray silty clay
10					

* A.S.T.M D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 10
OWNER: Greiner's Lagoon
LOCATION: Lagoons #1 + #2 NE corner
ADDRESS: Fremont, OH
TOTAL DEPTH: 6 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 13 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Fill dirt, bricks, etc.
2					
3		S-72			
4					
					Black oily sludge, rubbery fibrous material
6					Concrete
					Note: First attempt to drill hit concrete at 3 ft. Second attempt hit concrete at 0.5 ft. Third attempt hit concrete at 6 ft. after getting one sample. Hole aborted.

* A.S.T.M D1586

SHEET ___ OF ___

WESTON

DRILLING LOG

WELL NUMBER: 11
OWNER: Greiner's Lagoon
LOCATION: Lagoons #1 + #2 NW corner
ADDRESS: Fremont, OH
TOTAL DEPTH: 16 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 13 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Fill dirt
2					
3		S-73			
4					Gray Clay
					Weathered rocky material, black + white matrix (oily)
6					Black muck, very wet (spoon sank thru 6' to 8' sample) (discolored, oily)
7		S-74			
8					discolored
9					
10		S-75			Dark gray to very dark gray silty clay (oily, discolored)
11					
12		S-76			
13					
14		S-77			Dark gray silty clay
15					
16					

* A.S.T.M D1586

SHEET ___ OF ___

WESTON

DRILLING LOG

WELL NUMBER: 12
OWNER: Greiner's lagoon
LOCATION: Lagoon #1 + #2 SW corner
ADDRESS: Fremont, OH
TOTAL DEPTH: 7 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 13 Sept.
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Fill dirt
2					Dark gray clay
3					Brown fill dirt
4					
		S-78			Gray silty clay
6					
7					
					Note: Split spoon contained brown fill dirt from 3' to 5'. No sample was taken.
					Note: No evidence of discolored or oily material in this hole.

* A.S.T.M D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 13
OWNER: Greiner's Lagoon
LOCATION: Lagoon #1 + #2 middle
ADDRESS: Fremont, OH
TOTAL DEPTH: 19 ft.
SURFACE ELEVATION:
WATER LEVEL:
DRILLING COMPANY: Keck
DRILLING METHOD:
DATE DRILLED: 13 Sept
DRILLER:
HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1, 2, 3, 4					Brown fill dirt Note: Split spoon at 3' to 5' came up empty.
6, 7		S-79			Dark gray sandy clay (oily)
8, 9, 10, 11		S-80 S-81			discolored
12, 13, 14, 15, 16, 18, 19		S-82 S-83 S-84			Dark gray to black silty clay, tightly packed except at some wet areas (discolored to 17 ft.)

* A.S.T.M. D1586

SHEET ____ OF ____

WESTON

DRILLING LOG

WELL NUMBER: 14 OWNER: Greiner's Lagoon
LOCATION: Lagoon #1 + #2 SE corner ADDRESS: Fremont, OH
TOTAL DEPTH
SURFACE ELEVATION: WATER LEVEL: 8 ft.
DRILLING COMPANY: Keck DRILLING METHOD: DATE DRILLED: 13 Sept.
DRILLER: HELPER:
LOG BY: B. Giles

SKETCH MAP

NOTES:

DEPTH (FEET)	GRAPHIC LOG	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE BLOWS*	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1					Brown fill dirt
2					
3					
4					
					Gray, mucky, organic clay
6					
7					
8					Note: Split spoons at 3' to 5' and 6' to 8' came up with inadequate material to obtain a sample.
					Note: No evidence of discolored material in this hole.

* A.S.T.M D1586

SHEET ___ OF ___

S63	ND	
64	ND	
65	ND	
66	"	
67	"	
68	"	
69	ND	
70	"	
71	"	
72	"	
73	"	
74	"	- ↑LDL 18 mg/kg matrix interf
75	"	
76	"	
77	"	
78	"	
79	"	
80	"	
81	"	
82	"	
83	"	

S84 ND

W-02 ND

MBAS 10 mg/lt

OG <1 mg/lt

phenols .03

pH 6.2

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

ASK DESCRIPTION _____ TASK NO. _____

PREPARED BY _____ DEPT _____ DATE _____

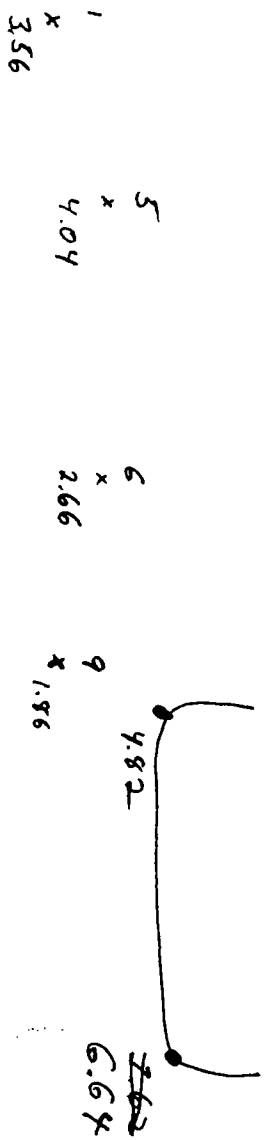
MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY _____

DEPT _____ DATE _____

Lagoon 3+4 Elev



WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

ASK DESCRIPTION _____ TASK NO. _____

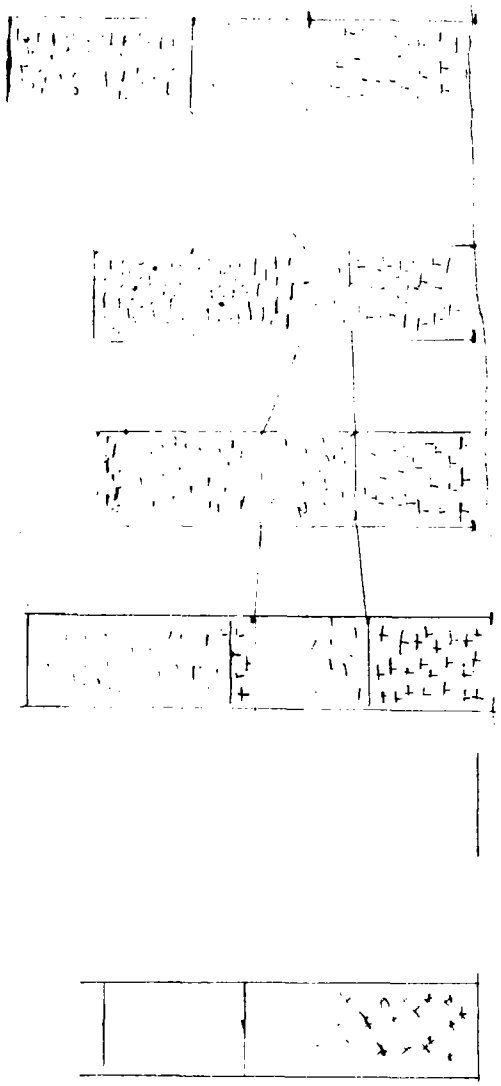
PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY

DEPT _____ DATE _____



RFW 10-05-003/A-5/85

WESTON

MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY	
DEPT	DATE

Lagoon #3

x 4.41

x 5.61

x 3.83

x 4.25

x 7.66

* EW

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY _____

DEPT _____ DATE _____

Elise,

Here are the well logs from Heiner's lagoon. I hope they are satisfactory. I don't feel they are as accurate as some I've done in the past for the following ~~reso~~ reasons (excuses):

① Normally, when I've logged + sampled at shallow depths such as this, I've been with a 2-3 man crew, where one person always watches the drilling activity while someone else samples, writes, prepares for next sample, etc. With one person you're dependent on driller for information about depths, etc. of various strata

② It's very difficult to talk to the driller, particularly with level C or higher protection. It requires that he shut down the rig + walking some distance away to carry on a conversation. Drillers don't like to do this for obvious reasons. In the past, I've been able to carry on a running conversation with the driller + he can inform you when strata changes, when he hits water table, + just what he thinks from the feel of the auger or spoon; things that I can't see in samples or cuttings.

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT ____ W.O. NO. ____

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

Also, drillers usually keep their on log, which they will share with you, but this driller wasn't very helpful in that respect.

(3) A technique I've used for grain size determination is the sense of feel. This ~~of~~ is difficult through 4 pairs of gloves.

Anyway, I really enjoyed working with you and the rest of the crew. We'll have to do it again sometime. I'll probably see you in Ft. Wayne in a few weeks.

Good luck,

Billy

RFW 10-05-003/A-5 85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

ASK DESCRIPTION _____ TASK NO. _____

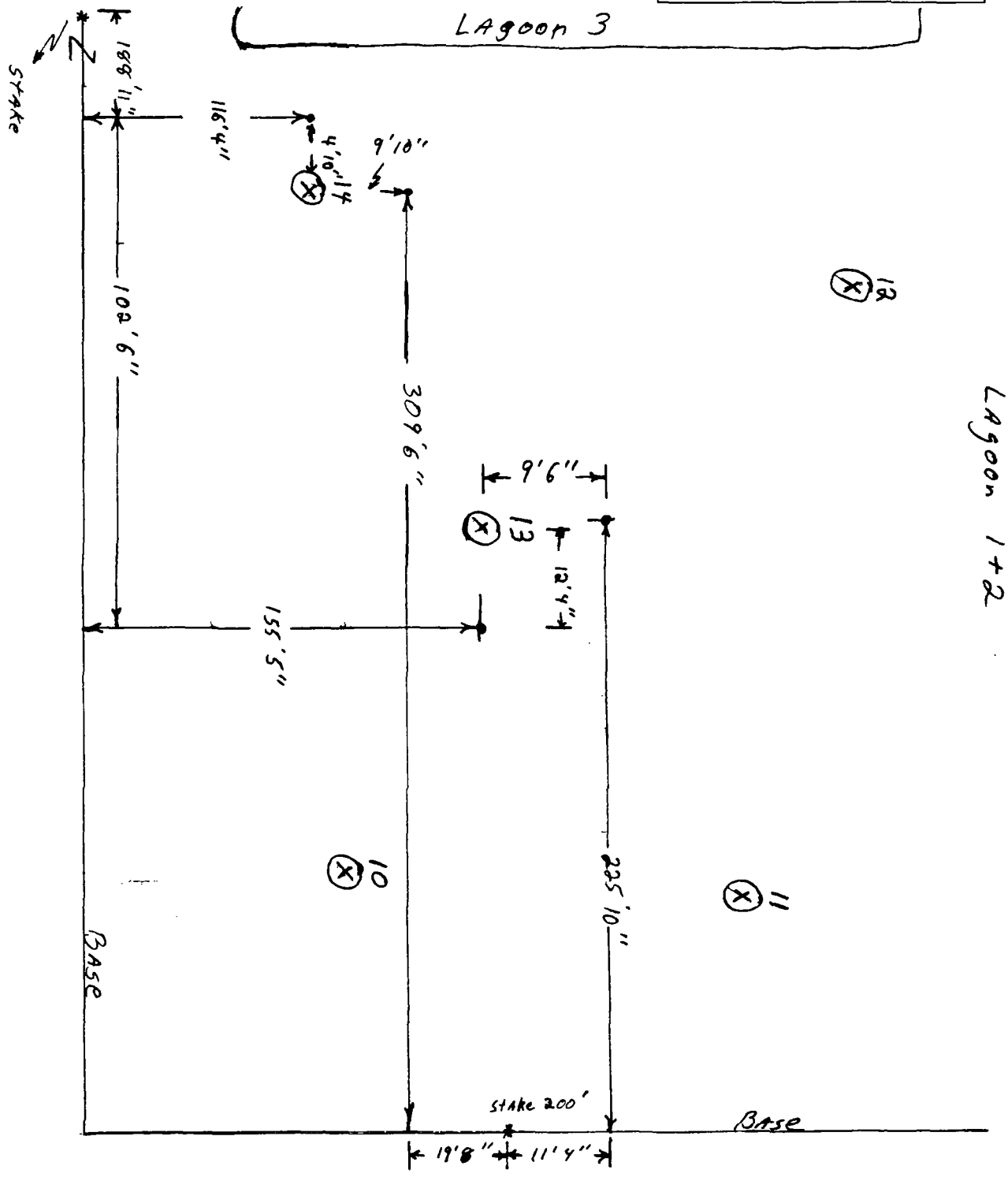
PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY _____ DEPT _____ DATE _____

Lagoon 3



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

ASK DESCRIPTION _____ TASK NO. _____

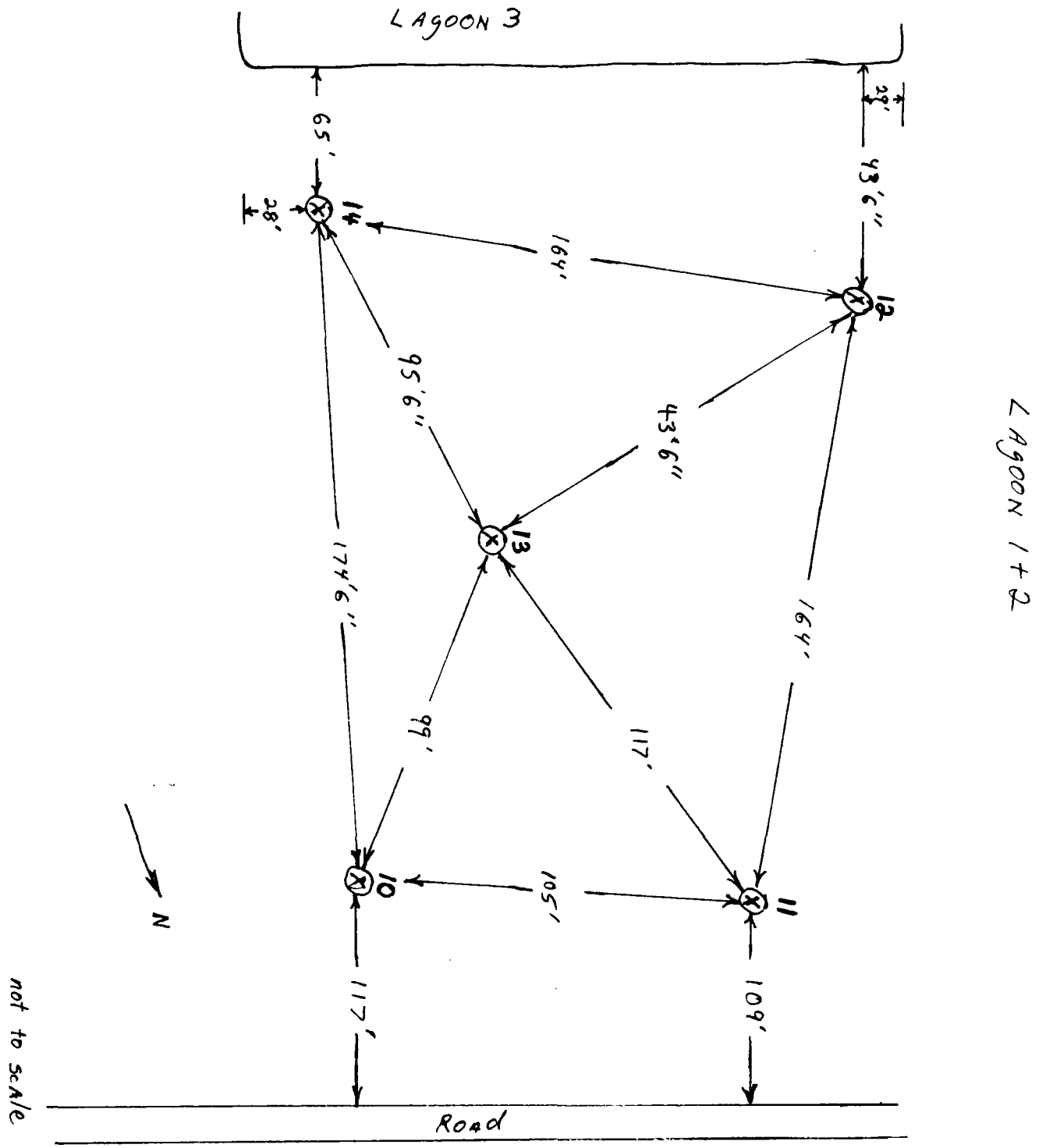
PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY _____

DEPT _____ DATE _____



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiner's W.O. NO. Hole #1

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____	DEPT ____	DATE ____		APPROVED BY
MATH CHECK BY ____	DEPT ____	DATE ____		
METHOD REV. BY ____	DEPT ____	DATE ____		DEPT ____ DATE ____

Surface ~~Surface~~

hit wood in spoon
no samples
at 3-5' interval
6' heaving in auger
5-~~5~~ 6'-8' interval

5'

10' 10'

brown clay cap 0-3.5'
sandy clay

- discolored material (sludge)
black to ~~brown~~ dark gray clay 3.5'-6.0'

very black sandy clay (odor) 6.0-
some gravel

Hole 1A: moved over to west ~1', auger to sludge, + took spoon
spoon empty, no sample

Hole 1B: moved rig ~10' to the south
sampled at 4'-6' - dark gray course sandy clay w/some small gravel

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiners W.O. NO. Hole #2

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

surface

brown clay cap

S-54 3'to5' (2.5'to4')

dark brown sandy clay; wood chips

5'

S-55 ~~4'to~~ 6'to8'

silty gray clay

Note: no colored sludge evident

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiner's W.O. NO. Hole #3

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

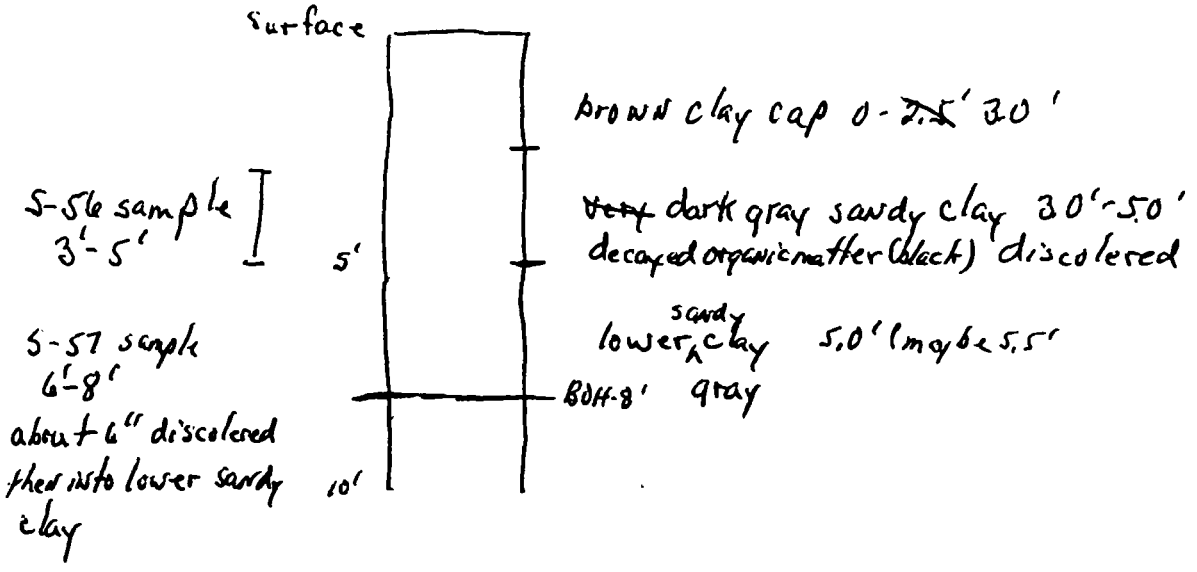
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

between S-12 & S-13



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiner's W.O. NO. Hole #4

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

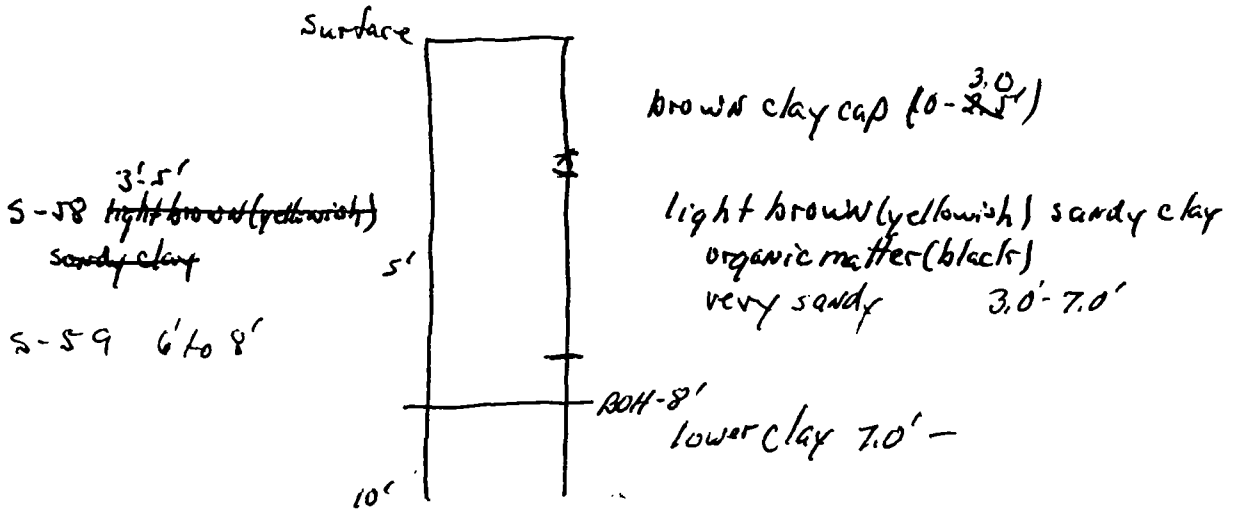
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

between S-13 + S-8



samples not discolored with dark oily substance as before

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiner's W.O. NO. Hole #5

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

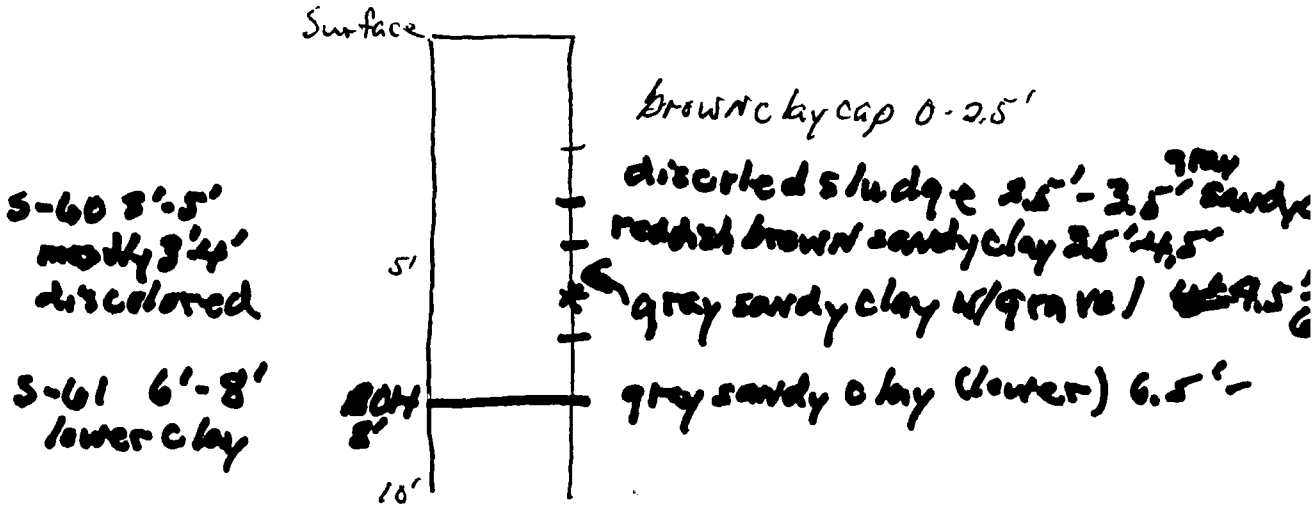
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

between S7 + S-8



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiwer's W.O. NO. Hole #6

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

MATH CHECK BY ____ DEPT ____ DATE ____

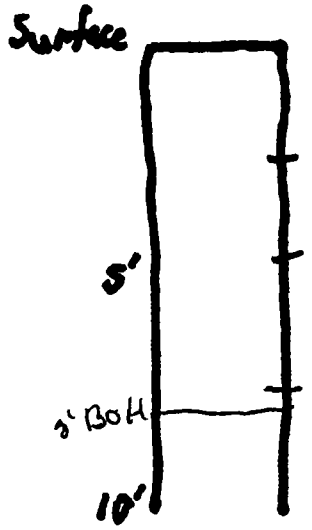
METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____ DEPT ____ DATE ____

S-9

S-62 3'-5' discolored

S-63 6'-8' discolored



brown clay cap @ ±2.5'
very dark gray sandy clay (sludge) discolored 2.5'-4.5'

dark gray silty clay discolored 4.5'-7.5'

lower gray sandy clay 7.5'

5.0' of discolored material

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS CONSULTANTS

SHEET ___ of ___

CLIENT/SUBJECT Greiners W.O. NO. Hole #7

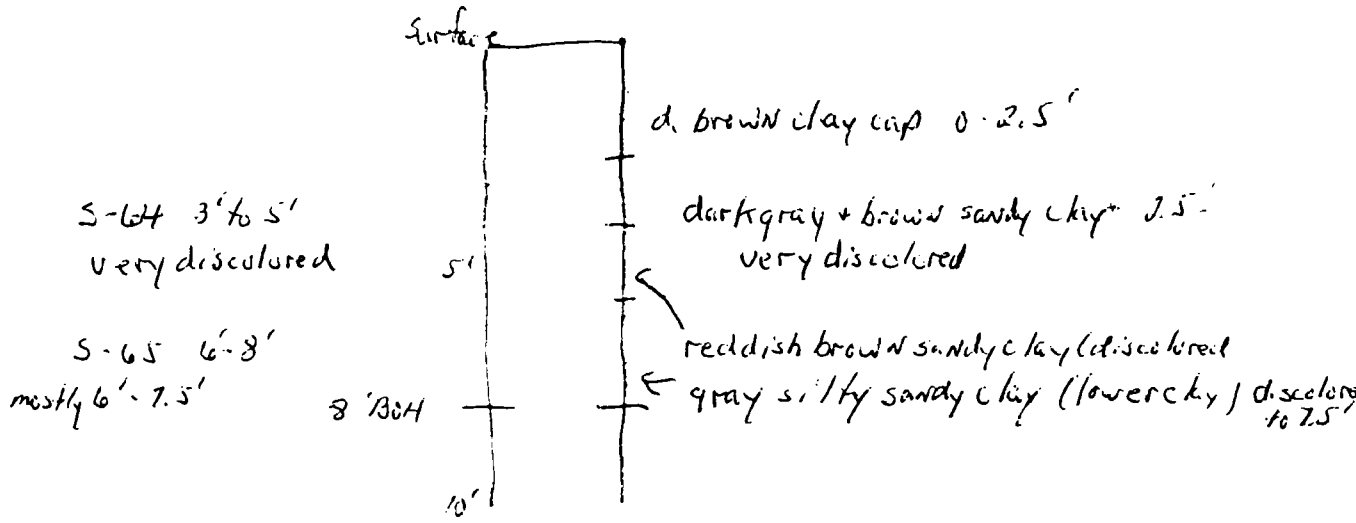
TASK DESCRIPTION ___ TASK NO. ___

PREPARED BY ___ DEPT ___ DATE ___ APPROVED BY

MATH CHECK BY ___ DEPT ___ DATE ___

METHOD REV BY ___ DEPT ___ DATE ___ DEPT ___ DATE ___

S-14



* sample was discolored to 8', but below 7.5' appeared to be only on the surface of sample. Decided not to penetrate clay barrier any deeper.

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Griner's W.O. NO. Hole #8

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

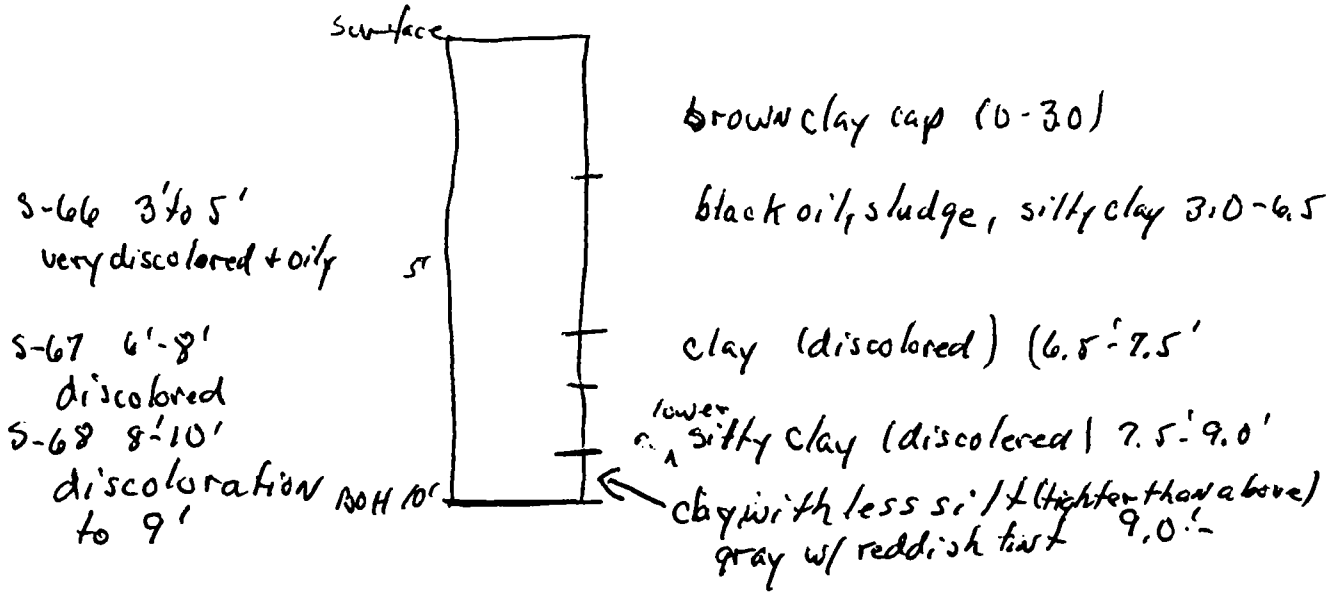
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

Between S-15 + S-20



Discoloration ends at 9'

Oil sheen on well cuttings

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiner's W.O. NO. Hole #9

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

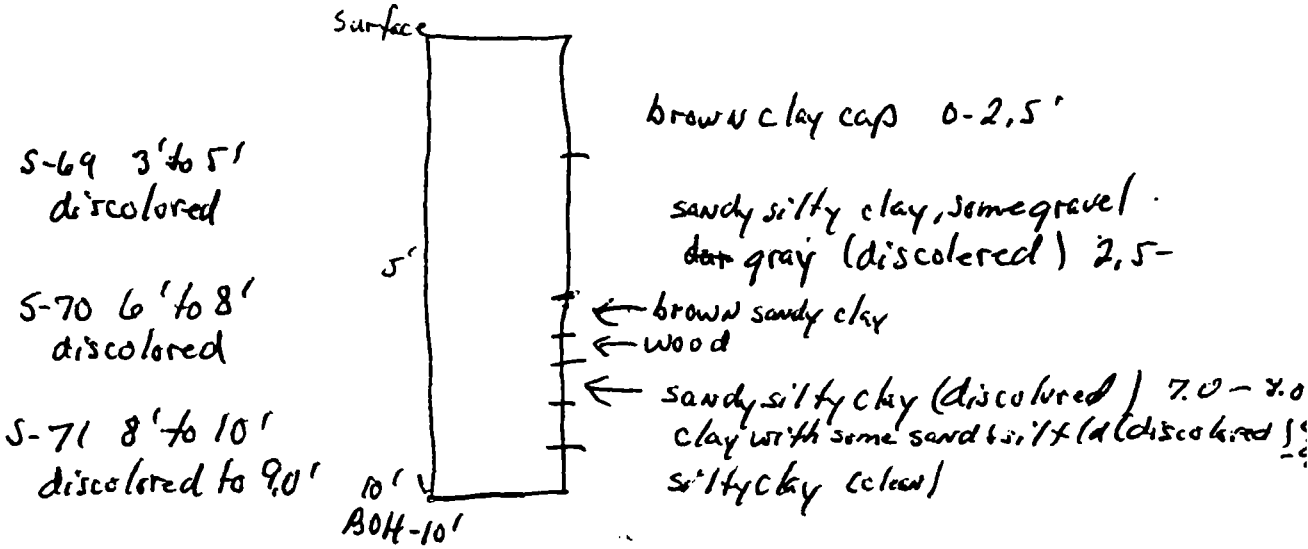
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

Between S-5 & S-10



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiner's W.O. NO. Hole #10

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

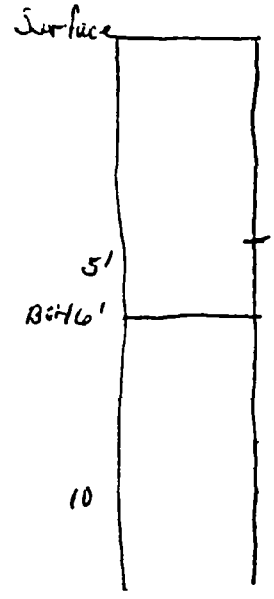
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____ DEPT ____ DATE ____

NE corner

S-72 3'-5'
black oily sludge



fill dirt, bricks, etc. 0-4.5'

← black oily sludge, rubbery materials carpet?
fibrous materials 4.5'-
hit concrete at 6'

First attempt: Auger 3', hit concrete
2nd " : moved 8' east, hit concrete @ 0.5'
3rd " : moved 20' west, " " 6.0'

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ___ of ___

CLIENT/SUBJECT Greiner's W.O. NO. 11 hole

TASK DESCRIPTION ___ TASK NO. ___

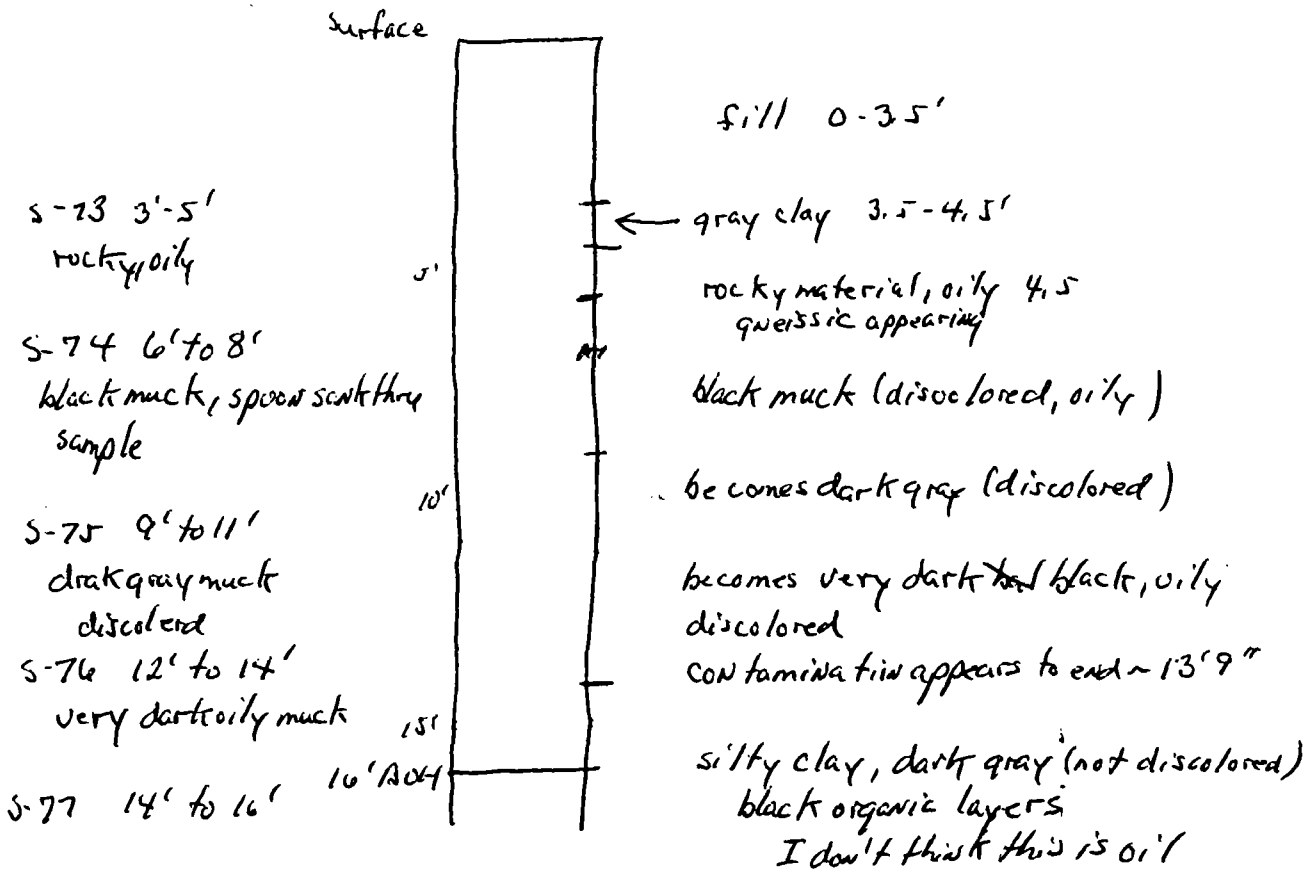
PREPARED BY ___ DEPT ___ DATE ___

MATH CHECK BY ___ DEPT ___ DATE ___

METHOD REV. BY ___ DEPT ___ DATE ___

APPROVED BY ___ DEPT ___ DATE ___

NW corner



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET 6 of ____

CLIENT/SUBJECT Greiner's W.O. NO. 12 [illegible]

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

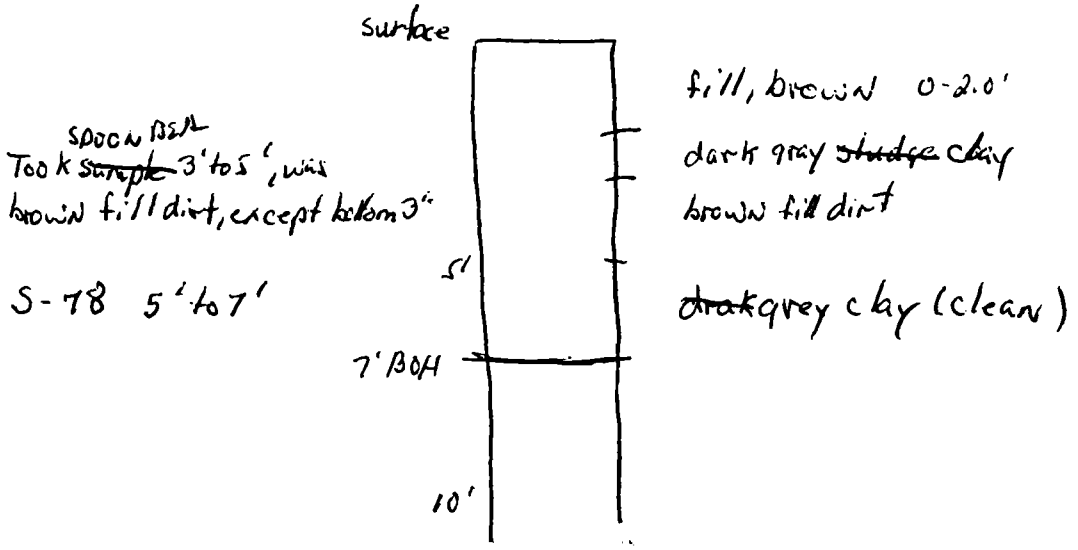
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____

DEPT ____ DATE ____

SW corner



* This hole appears clean.

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ___ of ___

CLIENT/SUBJECT Greiner's W.O. NO. 13 Hole

TASK DESCRIPTION ___ TASK NO. ___

PREPARED BY ___ DEPT ___ DATE ___

MATH CHECK BY ___ DEPT ___ DATE ___

METHOD REV. BY ___ DEPT ___ DATE ___

APPROVED BY ___ DEPT ___ DATE ___

Middle

Empty spoon @ 3' to 5'

S-79 5' to 7'
+ high HNu reading in hole
discolored, oily

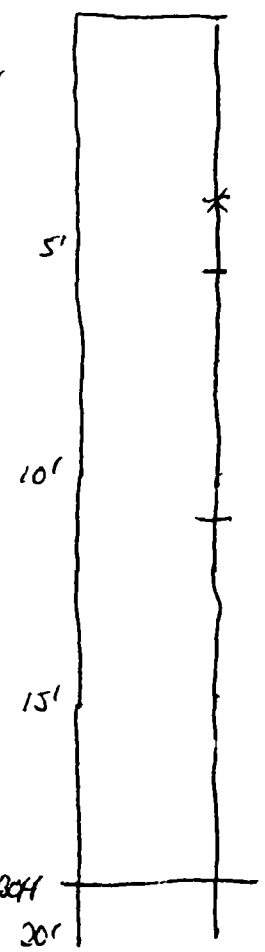
S-80 8' to 10'
discolored, oily

S-81 10' to 12'
black, oily

S-82 13'-15'
black, oily

S-83 15'-17'
black, oily

S-84 17' to 19'
appear clean



brown fill

dark gray oily ~~sludge~~ sandy clay

dark gray to black silty clay, oily, sludge discolored

tight silty clay, oily (less @ 15') drak gray

same except looser in wet areas

tightly packed silty clay gray

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ___ of ___

CLIENT/SUBJECT Greiner's W.O. NO. 14 hole

TASK DESCRIPTION ___ TASK NO. ___

PREPARED BY ___ DEPT ___ DATE ___

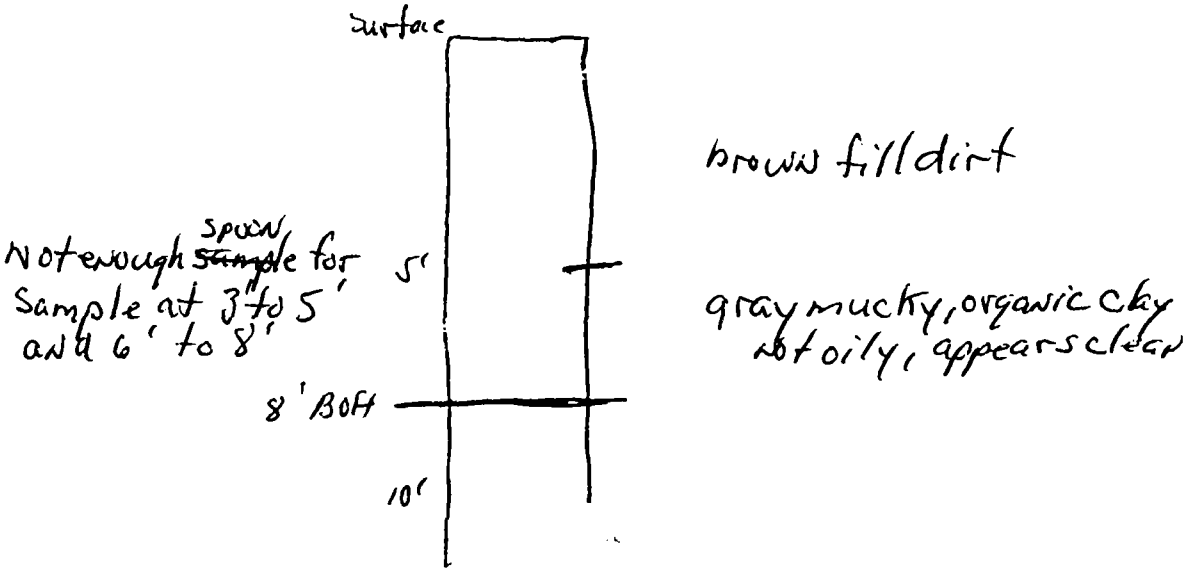
MATH CHECK BY ___ DEPT ___ DATE ___

METHOD REV. BY ___ DEPT ___ DATE ___

APPROVED BY ___

DEPT ___ DATE ___

SE Corner



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

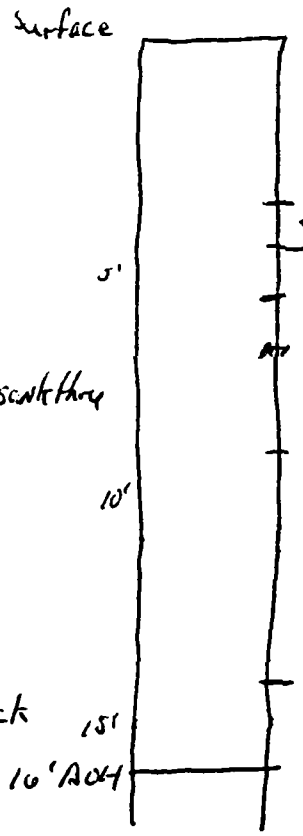
SHEET ___ of ___

CLIENT/SUBJECT Greiner's W.O. NO. 11 hole

TASK DESCRIPTION ___ TASK NO. ___

PREPARED BY ___	DEPT ___	DATE ___	APPROVED BY
MATH CHECK BY ___	DEPT ___	DATE ___	
METHOD REV. BY ___	DEPT ___	DATE ___	DEPT ___ DATE ___

NW corner



fill 0-3.5'

S-73 3'-5'
rocky, oily

← gray clay 3.5-4.5'

rocky material, oily 4.5
gneissic appearing

S-74 6' to 8'
black muck, spoon sent thru
sample

black muck (discolored, oily)

becomes dark gray (discolored)

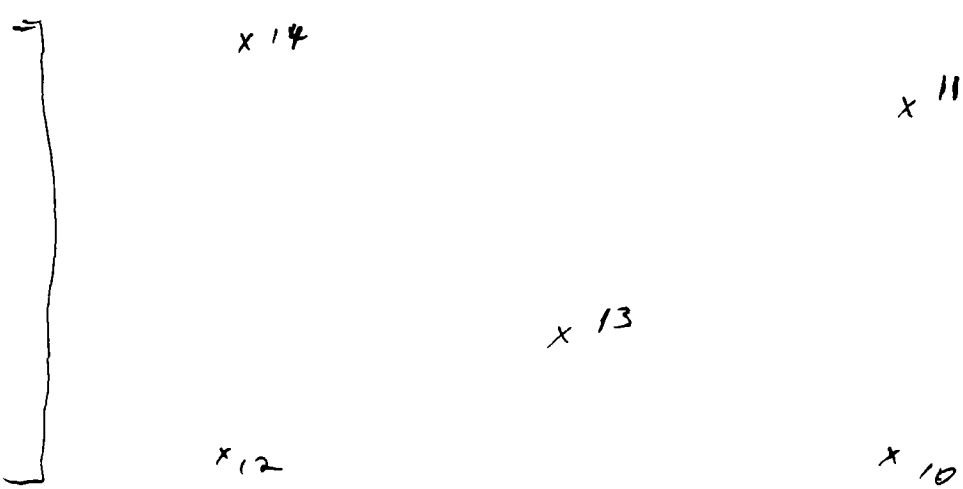
S-75 9' to 11'
dark gray muck
discolored

becomes very dark ~~bad~~ black, oily
discolored
contamination appears to end ~ 13'9"

S-76 12' to 14'
very dark oily muck

silty clay, dark gray (not discolored)
black organic layers.
I don't think this is oil

S-77 14' to 16'



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET 6 of ___

CLIENT/SUBJECT Greiner's W.O. NO. 12 [illegible]

TASK DESCRIPTION ___ TASK NO. ___

PREPARED BY ___ DEPT ___ DATE ___

MATH CHECK BY ___ DEPT ___ DATE ___

METHOD REV. BY ___ DEPT ___ DATE ___

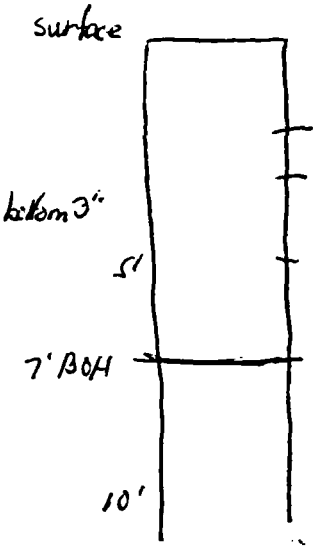
APPROVED BY ___

DEPT ___ DATE ___

SW corner

Took ~~sample~~ spoon BSR 3' to 5', was brown fill dirt, except bottom 3"

S-78 5' to 7'



fill, brown 0-2.0'

dark gray ~~sludge~~ clay

brown fill dirt

~~drak~~ grey clay (clean)

* This hole appears clean.

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ___ of ___

CLIENT/SUBJECT Greiner's W.O. NO. 13 Hole

TASK DESCRIPTION ___ TASK NO. ___

PREPARED BY ___ DEPT ___ DATE ___

MATH CHECK BY ___ DEPT ___ DATE ___

METHOD REV. BY ___ DEPT ___ DATE ___

APPROVED BY ___

DEPT ___ DATE ___

Middle

Empty spoon @ 3' to 5'		brown fill
S-79 5' to 7' + high HNu reading in hole discolore, oily	5'	dark gray oily ~~sludge~~ sandy clay
S-80 8' to 10' discolored, oily	10'	dark gray to black silty clay, oily, sludge discolored
S-81 10' to 12' black, oily		
S-82 13'-15' black, oily	15'	tight silty clay, oily (less @ 15') drak gray
S-83 15'-17' black, oily		same except looser in wet areas
S-84 17' to 19' appear clean	19' BOH 20'	tightly packed silty clay gray

RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

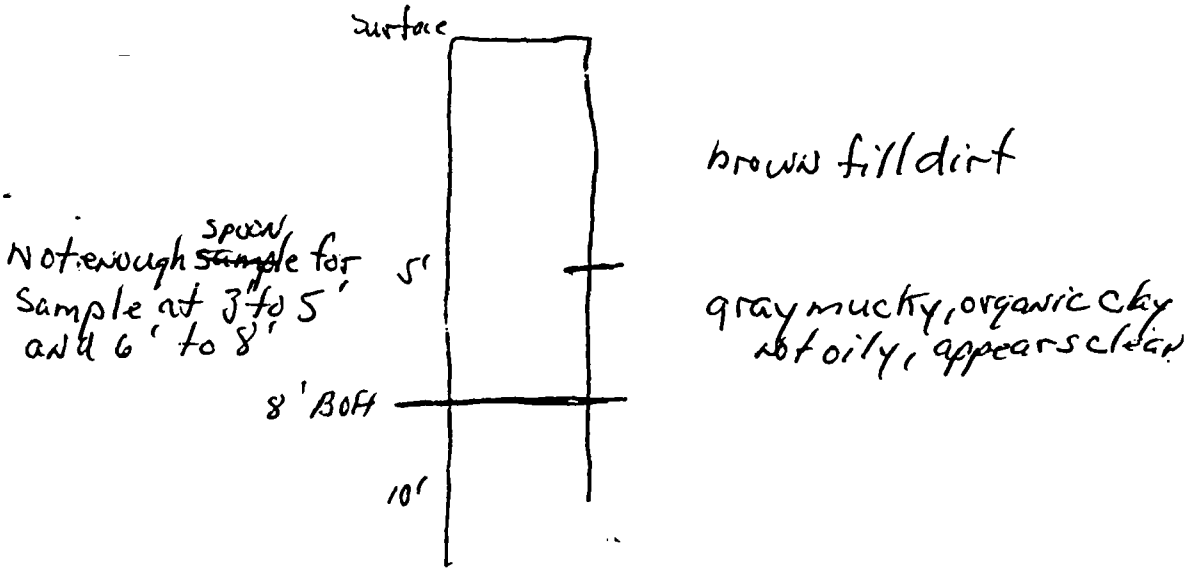
SHEET ___ of ___

CLIENT/SUBJECT Greiner's W.O. NO. 14 hole

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY	DEPT	DATE		APPROVED BY
MATH CHECK BY	DEPT	DATE		
METHOD REV. BY	DEPT	DATE		DEPT DATE

SE corner



RFW 10-05-003/A-5/85

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Greiner's W.O. NO. Hole #10

TASK DESCRIPTION ____ TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

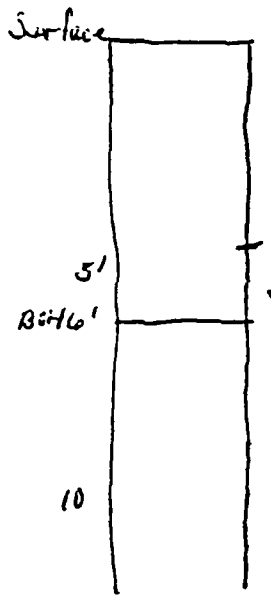
MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____ DEPT ____ DATE ____

NE corner

S-72 3'-5'
black oily sludge



fill dirt, bricks, etc. 0-4.5'

← black oily sludge, rubbery carpet? materials
fibrous materials 4.5'-
hit concrete at 6'

First attempt: Auger 3', hit concrete
2nd " : moved 8' east, hit concrete @ 0.5'
3rd " : moved 20' west, " " 6.0'

RFW 10-05-003/A-5/85

KECK TOTAL HOURS

9-11-87 9-12-87 9-13-87

HOT ZONE

	(9-11-87)	(9-12-87)	(9-13-87)	TOTALS
PETE -	3 HRS. 56 MIN -	7 HRS. 48 MIN -	7 HRS 48 MIN —	19 HRS. 32 MIN.
FLOYD -	3 HRS 35 MIN -	8 HRS. 43 MIN -	8 HRS. 43 MIN —	21 HRS. 1 MIN.

TOTALS

ON SITE -

	(9-11-87)	(9-12-87)	(9-13-87)	
PETE -	7 HRS. 55 MIN. -	11 HRS 30 MIN -	13 HRS 57 MIN	— 33 HRS. 22 MIN.
FLOYD -	7 HRS - 55 MIN. -	11 HRS 30 MIN -	13 HR. 57 MIN	— 33 HRS. 22 MIN.

KECK HOURS (9-11-87)

TOTAL HOURS ON SITE - 7 HRS 55 MIN.

SEPT. 11, 1987

PETE - 0815-0836 - 21 MIN

FLOYD - 0 - 0

PETE - 0920-1100 - 1 HR. 40 MIN.

FLOYD - 0920-1100 - 1 HR. 40 MIN.

PETE - 1142-1252 - 1 HR. 10 MIN

FLOYD - 11:42-1252 - 1 HR. 10 MIN

PETE - 1340-1425 - 45 MIN.

FLOYD - 1340-1425 - 45 MIN.

IN HOT ZONE

PETE - 3 HRS. 56 MIN.

FLOYD - 3 HRS. 35 MIN.

ON SITE -

PETE - 0720-1515 - 7 HR. 55 MIN

FLOYD - 0720-1515 - 7 HR. 55 MIN

KECK HOURS 9-12-87

TOTAL HOURS ON SITE - 11 HRS. 30 MIN

PETE - 0810-1050 - 2 HRS. 40 MIN.
FLOYD - 0810-1050 - 2 HRS 40 MIN.

PETE - 1120-1250 - 1 HR. 30 MIN.
FLOYD - 1120-1250 - 1 HR. 30 MIN.

PETE - 1350-1530 - 1 HR. 40 MIN.
FLOYD - 1350-1543 - 1 HR. 53 MIN.

PETE - 1635-1833 - 1 HR. 58 MIN
FLOYD - 1635-1915 - 2 HR. 40 MIN

IN HOT ZONE
PETE - 7 HRS 48 MIN
FLOYD - 8 HRS 43 MIN

ON SITE
PETE - 11 HRS. 30 MIN.
FLOYD - 11 HRS. 30 MIN

KECK HOURS (9-13-87)
TOTAL HOURS ON SITE

PETE - 0735-0940 - 2 HRS. 5 MIN.
FLOYD - 0735-0940 - 2 HRS. 5 MIN.

PETE - 1020-1135 - 1 HR. 15 MIN.
FLOYD - 1020-1135 - 1 HR. 15 MIN.

PETE - 1318-1440 - 1 HR. 22 MIN.
FLOYD - 1315-1505 - 1 HR. 50 MIN.

PETE - 1530-1710 - 1 HR. - 40 MIN
FLOYD - 1520-1710 - 1 HR. 50 MIN

PETE - 1810-2018 - 2 HR. 8 MIN
FLOYD - 1810-2010 - 2 HR. 0

IN HOT ZONE
PETE - 7 HRS. 48 MIN.
FLOYD - 8 HRS. 43 MIN

ON SITE
PETE - 13 HRS. 57 MIN.
FLOYD - 13 HRS. 57 MIN.

FF

WADSWORTH/ALERT
LABORATORIES, INC.
Sampling, testing, mobile labs
Since 1938

1600 Fourth Street, S.E./ P.O. Box 208 / Canton, OH 44701 / (216) 454-5809

Received 10-21-87
EB
FF

ANALYTICAL REPORT

PROJECT NO. OH523

GREINERS LAGOON

Presented to :

CARL EMLUND

MAECORP

WADSWORTH/ALERT LABORATORIES, INC.

Bob Peters/MAP
Bob Peters
Project Manager

Marvin W. Stephens
Marvin W. Stephens, Ph. D.
Vice President & Director General Laboratory Program

October 13, 1987

CORPORATE AND LABORATORY: Canton, Ohio (216) 454-5809
LABORATORY: Cleveland, Ohio (216) 642-9151
LABORATORY: Bartow, Florida (813) 533-2150
SOUTHEAST REGIONAL OFFICE: Lexington, South Carolina (803) 957-6590
24-HOUR ALERT LINE (216) 454-8304

WADSWORTH/ALERT
LABORATORIES, INC.

CASE NARRATIVE

Two soil samples were submitted by MAECORP on October 7, 1987, for the Greiner's Lagoon site (chain-of-custody #5-14927). These two samples, 3000-43730 and 3000-43731, contained matrix interferences which necessitated elevated PCB detection limits. Sample extract cleanup techniques specified in EPA PCB methodology for soil samples were utilized in an attempt to remove the interfering substance(s). These techniques included multiple sulfuric acid, mercury, florisil, silica gel, and alumina cleanups for both samples. Due to the nature of the ECD GC detector used in the analyses, unsuccessful cleanup attempts resulted in elevated detection limits.

Randy Grubbs
GC Coordinator
October 23, 1987

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 3000-43730
SAMPLE MATRIX : SOIL

RECEIVING DATE : 10/ 7/87
EXTRACTION DATE : 10/ 8/87
ANALYSIS DATE : 10/ 8/87

SAMPLE ID : S-89a 10/6 1110 S-10, 4' DOWN

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	8
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	3
PCB-1260	ND	3

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 3000-43731
SAMPLE MATRIX : SOIL

RECEIVING DATE : 10/ 7/87
EXTRACTION DATE : 10/ 8/87
ANALYSIS DATE : 10/ 8/87

SAMPLE ID : S-90a 10/6 1130 HOLE 8, 5' DOWN

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	15
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	2
PCB-1260	ND	2

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

QUALITY CONTROL SECTION

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE DATA

LOT NUMBER	LAB ID	PARAMETER	SPIKE PERCENT RECOVERY	SPK/DUP PERCENT RECOVERY
3000	871002	PCB in Solids	88	85

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE RECOVERY
CONTROL LIMITS

PARAMETER	WATER RECOVERY CONTROL LIMITS	SOLID RECOVERY CONTROL LIMITS
Carbofuran	1-167	1-167
GC Volatiles	51-127	51-127
Herbicides	14-134	3-141
PCB in Oil		57-117
PCB in Solids		47-127
PCB in Water	51-119	
Total Organic Carbon	61-129	
Total Organic Halogen	61-121	

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9287-93008
SAMPLE MATRIX : SOLID

RECEIVING DATE : 10/ 8/87
EXTRACTION DATE : 10/ 8/87
ANALYSIS DATE : 10/ 8/87

SAMPLE ID : INTRA-LAB BLANK , 10/8 /87

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

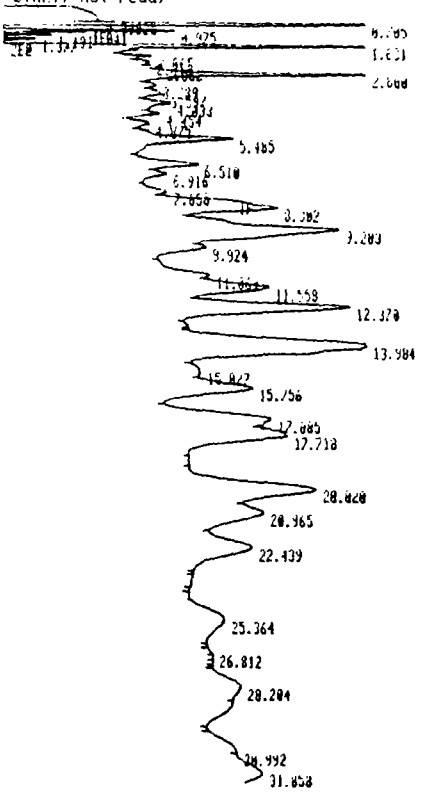
14.215	496	BB	[illegible]	[illegible]
15.027	1320	BB	.464	.17153
16.336	3537	BB	.459	.45962
19.165	1406	PB	.458	.13271
20.034	3312	BB	.572	.30044
21.453	3177	BB	.674	.41284
24.210	813	PB	.748	.10565
25.753	324	PB	.611	.04210
26.988	872	BB	.634	.11331
30.540	3090	PB	1.185	.40154
35.098	481	I PN	.583	.06250

TOTAL HEIGHT= 769546
MUL FACTOR=1.0000E+00

Hexane
Isopropanol
CS730
ml

- H_2SO_4 treated (x 3)
- Florisil column
- Ag^+ cleaned (x 4)

* RUN # 572 OCT 9, 1987 13:13:16
SINKII (not read)



STOP

RUN# 572 OCT 9, 1987 13:13:16

IDENTIFIER : GC-1, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.545	5248	BV	.315	1.31446
.625	6664	VV	.038	1.66912
.785	258511	VB	.058	64.74683
.975	8270	PB	.038	2.07137
1.041	3685	BB	.032	.92298
1.191	5954	BB	.055	1.49129
1.377	4594	BB	.094	1.15065
1.631	29492	BB	.065	7.38681
2.065	1017	PB	.079	.25473
2.316	377	BB	.100	.09443
2.532	323	BB	.077	.08090
2.880	11375	BB	.133	2.84908
3.289	444	BB	.168	.11121
3.597	836	BB	.204	.20939
4.033	1211	BB	.180	.30332
4.454	979	BB	.153	.24521
4.875	742	BB	.219	.18585
5.465	4480	BB	.289	1.12210
6.510	2422	BB	.243	.60663
6.916	753	BB	.192	.18860
7.650	505	BB	.122	.12649
8.302	4671	BB	.445	1.16994
9.203	6967	BB	.486	1.72939
9.924	854	BB	.207	.21390
11.558	3268	BB	.391	.81853
12.370	7548	BB	.414	1.89054
13.984	8615	VB	.643	2.15779
15.027	235	BB	.347	.05886
15.756	3242	BB	.487	.81202
17.685	1919	BB	.364	.48065
17.718	2394	BB	.393	.59962
20.020	4327	PB	.531	1.08376
20.965	1568	BB	.573	.39273
22.439	2404	BB	.689	.60213
25.364	1273	PB	.911	.31885
26.812	26	PB	.161	.00651
28.204	778	PB	.669	.19486
[illegible]	81	PB	1.585	.02029
[illegible]	1.58	I BB	[illegible]	.31509

TOTAL HEIGHT [illegible]
MUL FACTOR [illegible]

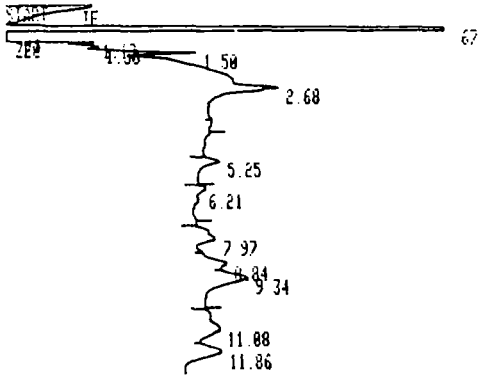
[illegible]

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.44	19732	PB	0.393	0.239
0.66	7367020	SPB	0.103	89.174
0.93	81799	BB	0.119	0.990
1.13	48160 D	BB	0.073	0.583
1.30	23652	BB	0.084	0.286
1.52	145709 D	BB	0.090	1.764
2.03	13118	BB	0.504	0.159
3.96	8018	BB	0.162	0.097
4.41	6540	BB	0.159	0.079
5.43	35741	BB	0.236	0.433
6.44	17825	PB	0.228	0.216
6.87	9153	BB	0.256	0.111
7.53	5172	BB	0.187	0.063
8.25	40791	BB	0.425	0.494
9.15	32119	BB	0.210	0.389
9.66	56045	BB	0.285	0.678
11.51	32443	BB	0.400	0.393
12.32	64912	BB	0.386	0.786
13.95	82659	BB	0.633	1.001
15.72	39697	BB	0.636	0.481
17.04	15917	BB	0.364	0.193
17.67	21439	BB	0.240	0.260
19.97	43962	PB	0.584	0.532
20.93	14822	BB	0.568	0.179
22.37	23389	BB	0.584	0.283
25.30	11523	BB	0.862	0.140

TOTAL HGHT= 8261400
MUL FACTOR= 1.0000E+00

Hydrocleaner #3730 1:10 [illegible]

Used for 1221 LDC



STOP

RUN # 872 OCT/08/87 16:00:07

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.67	5370388	DSBB	0.077	95.602
0.94	28413	BB	0.116	0.506
1.13	14204 D	BB	0.069	0.253
1.30	7320	BB	0.084	0.130
1.50	47784	BB	0.083	0.851
2.68	64362	BB	0.827	1.146
5.25	11121	BB	0.208	0.198
6.21	5716	BB	0.144	0.102
7.97	11945	BB	0.407	0.213
8.84	7833	BB	0.187	0.139
9.34	19369	BB	0.293	0.345
11.08	12011	BB	0.585	0.214
11.86	16978 I	BP	0.352	0.302

TOTAL HGHT= 5617400
MUL FACTOR= 1.0000E+00

Hydrocleaner #3731 1:10 [illegible]

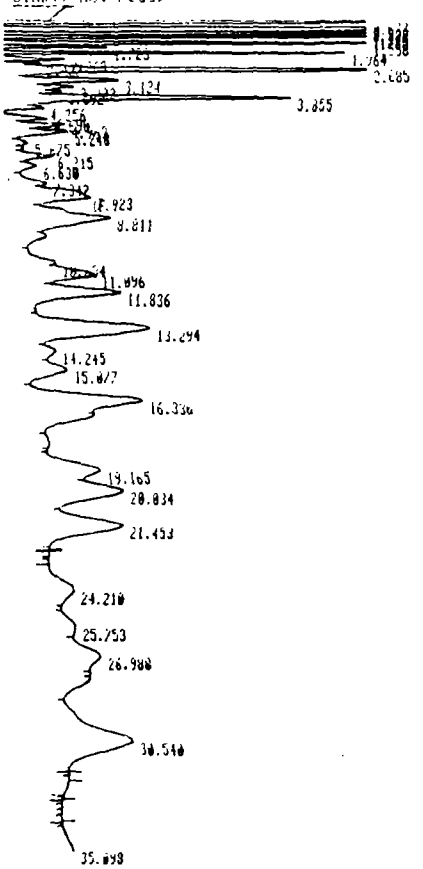
14.073	1032	PB	.635	.19453
17.770	1042	I VH	.711	.18734

TOTAL HEIGHT= 556216
MOL FACTOR=1.0000E+00

Alumina Sample B731

- also H_2SO_4 treated (X3)
- florisil column
- Hg + cleaned (X4)

RUN# 571 OCT 9, 1987 12:35:33
START: not ready



STOP

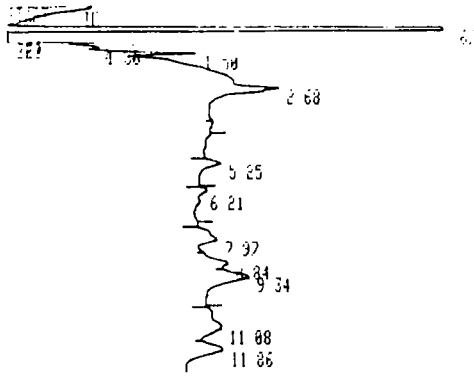
RUN# 571 OCT 9, 1987 12:35:33

IDENTIFIER : GC-1. MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.677	238254	FP	.851	30.96033
.932	155449	PV	.047	20.20009
.997	129152	VB	.050	16.78208
1.146	69481	BB	.053	9.02883
1.285	39243	BB	.065	5.09950
1.558	24159	BB	.084	3.13938
1.723	5865	BB	.079	.76214
1.964	17431	BB	.078	2.26510
2.263	2967	BB	.121	.38555
2.427	883	BB	.064	.11474
2.685	25809	BB	.121	3.35380
3.124	3957	BB	.170	.51420
3.402	1284	BB	.104	.16685
3.592	634	BB	.085	.08239
3.855	11692	BB	.160	1.51934
4.256	1225	BB	.144	.15918
4.690	1581	BB	.169	.20545
4.963	1686	BB	.136	.21909
5.248	1857	BB	.181	.24131
5.675	387	BB	.151	.05029
6.215	1309	PB	.284	.17010
6.830	622	BB	.214	.08083
7.342	524	BB	.116	.06809
7.923	2343	BB	.436	.30447
8.811	3248	BB	.496	.42207
11.096	1992	BB	.393	.25885
11.836	3547	BB	.396	.46092
13.294	5137	PB	.601	.66754
14.245	496	BB	.356	.06445
15.077	1320	BB	.464	.17153
16.336	3537	BB	.459	.45962
19.165	1406	PB	.450	.18271
20.034	2312	BB	.572	.30044
21.453	3177	BB	.674	.41284
24.210	813	PB	.748	.10565
25.753	324	PB	.611	.04210
26.988	872	BB	.634	.11331
30.540	3098	PB	1.105	.40154
35.098	481	I PH	.583	.06250

TOTAL HEIGHT= 769546
MOL FACTOR=1.0000E+00

Alumina Sample B730



STOP

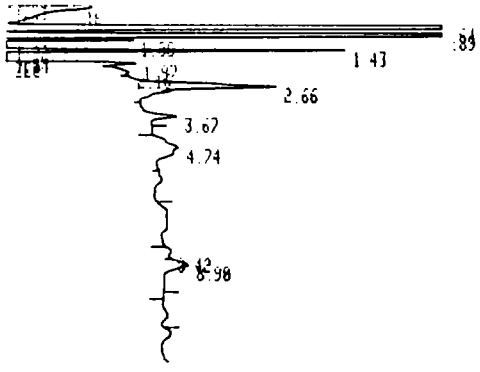
RUN # 872 OCT/08/87 16:00:07

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.67	5370388	DSBB	0.077	95.602
0.94	28413	BB	0.116	0.506
1.13	14204	D BB	0.069	0.253
1.30	7320	BB	0.084	0.130
1.50	47784	BB	0.083	0.851
2.68	64362	BB	0.327	1.146
5.25	11121	BB	0.208	0.198
6.21	5716	BB	0.144	0.102
7.97	11945	BB	0.407	0.213
8.84	7833	BB	0.187	0.139
9.34	19369	BB	0.293	0.345
11.08	12011	BB	0.585	0.214
11.86	16978	I BP	0.352	0.302

TOTAL HGHT= 5617400
MUL FACTOR= 1.0000E+00

Hotcleanup
cf 3731
1:10
used 1221 for



STOP

RUN # 873 OCT/09/87 16:14:18

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.64	5096624	DSBB	0.077	80.925
0.89	583610	SPB	0.114	9.267
1.08	116823	D BB	0.063	1.855
1.22	62178	D BB	0.070	0.987
1.43	279881	D BB	0.088	4.444
1.64	10785	BB	0.097	0.171
1.87	21096	BB	0.082	0.335
2.16	4532	BB	0.149	0.072
2.66	73311	BB	0.150	1.164
3.67	18332	PB	0.163	0.291
4.74	14720	BB	0.526	0.234
8.42	3026	BB	0.213	0.048
8.90	13081	BB	0.258	0.208

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: OH523
PROJECT NAME: Greiners lagoon
SAMPLERS: (Signature) Elise, Eallen

Custody #s 38711 38712

STA. NO.	DATE (1987)	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS							REMARKS
													MAECORP PO# 23346-OH523
S-89a	10/6	1110	X		S-10, 4' down	1-8oz	X						Verbals to:
S-90a	10/6	1130	X		Lake 8, 5' down	1-8oz	X						Ed Burk or Elise Allen
													419/992-4218
													Hard copy w/ QAQC to:
													Carl ~~Eisek~~ Emlund
													213 County Rd 181
													Fremont, Ohio 43420
													QA/QC + Results to:
													FREDDIE WALKER
													MAECORP (Below)
Samples to Wadsworth													

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise Eallen	10/6/87 1510				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[illegible]	10/7/87 10 10 am	Bill to: MAECORP 17950 S. Halstead Homewood, IL	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

WADSWORTH/ALERT
LABORATORIES, INC.

Sampling, testing, mobile labs

Since 1938

1600 Fourth Street, S.E./ P.O. Box 208 / Canton, OH 44701 / (216) 454-5809

ANALYTICAL REPORT

PROJECT NO. OH523

GREINER'S LAGOON

Presented to :

DEANNA GEILE

MAECORP

WADSWORTH/ALERT LABORATORIES, INC.

Bob Peters

Bob Peters
Project Manager

Marvin W Stephens /sc

Marvin W. Stephens, Ph. D.
Vice President & Director General Laboratory Program

October 2, 1987

CORPORATE AND LABORATORY: Canton, Ohio (216) 454-5809
LABORATORY: Cleveland, Ohio (216) 642-9151
LABORATORY: Bartow, Florida (813) 533-2150
SOUTHEAST REGIONAL OFFICE: Lexington, South Carolina (803) 957-6590
24-HOUR ALERT LINE: (216) 454-8304

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2800-42786
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/24/87
EXTRACTION DATE : 9/24/87
ANALYSIS DATE : 9/25/87

SAMPLE ID : W-03 9/23 EFFLUENT

	RESULT (ug/l)	DETECTION LIMIT
PCB-1016	ND	0.5
PCB-1221	ND	0.5
PCB-1232	ND	0.5
PCB-1242	ND	0.5
PCB-1248	ND	0.5
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2800-42786
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/24/87

SAMPLE ID : W-03 9/23 EFFLUENT

PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT	
Methylene Blue Active Substances	9/25/87	3	0.1	mg/l
Oil and Grease	9/30/87	7	1	mg/l
Total Recoverable Phenolics	9/25/87	0.3	0.01	mg/l
pH	9/25/87	6.2		su

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

QUALITY CONTROL SECTION

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE DATA

LOT NUMBER	LAB ID	PARAMETER	SPIKE PERCENT RECOVERY	SPK/DUP PERCENT RECOVERY
2800	870921	Methylene Blue Active Substances	102	102
2800	870904	PCB in Water	80	80
2800	870925	Phenols	98	94

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE RECOVERY
CONTROL LIMITS

PARAMETER	WATER RECOVERY CONTROL LIMITS	SOLID RECOVERY CONTROL LIMITS
Ammonia	87-115	80-122
Bromide	90-114	84-120
Chemical Oxygen Demand	88-112	88-112
Chloride	92-108	89-111
Cyanide	71-114	60-125
Fluoride	82-114	74-122
Hardness	94-106	
Methylene Blue Active Substances	75-119	64-130
Nitrate	83-119	74-128
Nitrate/Nitrite	83-119	74-128
Nitrite	93-109	89-113
Phenols	70-122	57-135
Phosphates	86-110	80-116
Sulfate	80-112	72-120

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE RECOVERY
CONTROL LIMITS

PARAMETER	WATER RECOVERY CONTROL LIMITS	SOLID RECOVERY CONTROL LIMITS
Carbofuran	1-167	1-167
GC Volatiles	51-127	51-127
Herbicides	14-134	3-141
PCB in Oil		57-117
PCB in Solids		47-127
PCB in Water	51-119	
Total Organic Carbon	61-129	
Total Organic Halogen	61-121	

WADSWORTH/ALERT
LABORATORIES, INC.

ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90925
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/25/87

SAMPLE ID : INTRA-LAB BLANK , 9 /25/87

PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT	
Cyanide	9/23- 9/25/87	ND	0.005	mg/l
Sulfide	9/25/87	ND	1	mg/l
Methylene Blue Active Substances	9/25/87	ND	0.1	mg/l
Total Organic Nitrogen	9/25/87	ND	0.2	mg/l
Total Recoverable Phenolics	9/25/87	ND	0.01	mg/l
Phosphate Phosphorus	9/25/87	ND	0.2	mg/l
Total Dissolved Solids	9/25/87	ND	5	mg/l
Total Organic Carbon	9/25/87	ND	1	mg/l
Total Organic Halogen	9/25/87	ND	10	ug/l

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90930
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/30/87

SAMPLE ID : INTRA-LAB BLANK , 9 /30/87

PARAMETER	PREPARATION - ANALYSIS DATE	RESULT	DETECTION LIMIT	
Biochemical Oxygen Demand	9/30/87	ND	2	mg/l
Chloride	9/30/87	ND	2	mg/l
Methylene Blue Active Substances	9/30/87	ND	0.1	mg/l
Oil and Grease	9/30/87	ND	1	mg/l
Sulfate	9/30/87	ND	5	mg/l
Total Dissolved Solids	9/30/87	ND	5	mg/l

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90924
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/24/87
EXTRACTION DATE : 9/24/87
ANALYSIS DATE : 9/25/87

SAMPLE ID : INTRA-LAB BLANK , 9 /24/87

	RESULT (ug/l)	DETECTION LIMIT
PCB-1016	ND	0.5
PCB-1221	ND	0.5
PCB-1232	ND	0.5
PCB-1242	ND	0.5
PCB-1248	ND	0.5
PCB-1254	ND	1
PCB-1260	ND	1

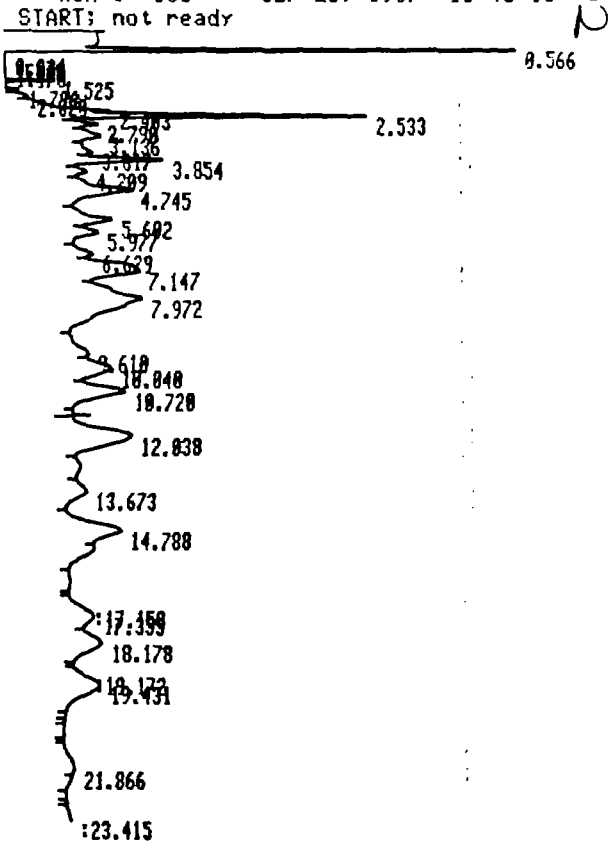
ND - NONE DETECTED

MUL FACTOR=1.0000E+00 4A 10 2W RS 4W

GC-I-B

Hg, Florisil
N_2 Cleaned

* RUN # 383 SEP 25, 1987 15:45:06
START; not ready



STOP

RUN# 383 SEP 25, 1987 15:45:06

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.566	73541	VP	.069	64.44410
.814	2453	PV	.047	2.14957
.876	1599	VP	.041	1.40121
1.005	1403	PB	.049	1.22945
1.176	928	BB	.090	.81321
1.525	2854	BB	.061	2.50096
1.796	493	BB	.041	.43202
2.020	165	BB	.178	.14459
2.533	9239	BB	.088	8.09615
2.790	769	BB	.105	.67388
3.136	685	BB	.184	.60027
3.617	251	BB	.125	.21995
3.854	2696	BB	.137	2.36251
4.209	373	BB	.152	.32686
4.745	1964	BB	.274	1.72106
5.602	1109	BB	.220	.97182
5.977	652	BB	.194	.57135
6.629	363	BB	.163	.31810
7.147	1703	BB	.401	1.49234
7.972	1950	BB	.633	1.70879
9.610	127	BB	.001	.11129
10.040	928	BB	.360	.81321
10.720	1568	BB	.347	1.37404
12.038	1922	BB	.543	1.68425
13.673	590	VB	.473	.51702
14.788	1271	BB	.404	1.11378
17.355	577	PB	.457	.50563
18.178	769	BB	.514	.67388
19.431	1035	VB	.619	.90697
21.866	139	PB	.382	.12181

TOTAL HEIGHT= 114116
MUL FACTOR=1.0000E+00

254 8 25

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: OH-523
PROJECT NAME: Greiners Lagoon
SAMPLERS: (Signature) Elise E Allen

Custody Seal #s: 34765, 34766

REMARKS: MAECORP PO# 23101-OH523

STA. NO.	DATE (1987)	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCBs (1 ppb)	Oil+Grease	total phenols	MBAS			
W-03	9/23			X	Effluent	2-1 liter	X						Results + QA/QC to:
W-03	9/23			X	Effluent	1-1 liter		X					FRED WALKER
W-03	9/23			X	Effluent	1-1 liter			X				17450 HALSTED
W-03	9/23			X	Effluent	1-1 liter				X			Homewood, IL 60430
													Verbal results + hardcopy
													to: Deanne Geile
													213 County Rd 181
													Fremont, Ohio
													43420
													419/992-4217
Samples iced for preservative													
													~~Samples to Wadsworth~~

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise E Allen	9/23/87 1600				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Jeffrey C Smith	Date / Time 1/24/87 9:10 am	Remarks Bill to: MAECORP INC 17450 Halsted Homewood, IL 60430	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

117 N. FIRST
ANN ARBOR, MICHIGAN 48104 (313) 662-3104

Client P.O. 23276-OH523
Report: 28426

Samples Recvd: 09-25-87
Refer Questions To:
ROBYN WOOLEY LETWIN

Client:
MAECORP INCORPORATED
17450 SOUTH HALSTED ROAD
HOMEWOOD, IL 60430
Attention: FREDDIE WALKER

Approved:

***
Residual Samples Will Be Held
TWO WEEKS
***

Client I.D.: S-85
ERG Sample No.: 09/177047
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
MERCURY	0.73	mg/Kg
ALUMINUM	380	mg/Kg
ANTIMONY	<1.2	mg/Kg
ARSENIC	2.9	mg/Kg
BARIUM	11	mg/Kg
BERYLLIUM	<0.10	mg/Kg
CADMIUM	12	mg/Kg
CALCIUM	16000	mg/Kg
CHROMIUM	50	mg/Kg
COBALT	0.61	mg/Kg
COPPER	290	mg/Kg
IRON	1000	mg/Kg
LEAD	87	mg/Kg
MAGNESIUM	1200	mg/Kg
MANGANESE	39	mg/Kg
NICKEL	20	mg/Kg
POTASSIUM	42	mg/Kg
SELENIUM	<0.40	mg/Kg
HIGHER DETECTION LIMIT DUE TO MATRIX INTERFERENCE.		
SILVER	0.64	mg/Kg
SODIUM	1900	mg/Kg
THALLIUM	<5.0	mg/Kg
VANADIUM	2.2	mg/Kg
ZINC	2100	mg/Kg
ACID PRIOR. POLL.		
2-Chlorophenol	<1400000	ug/Kg
4-Chloro-3-Methylphenol	<1400000	ug/Kg
2,4-Dichlorophenol	<1400000	ug/Kg
2,4-Dimethylphenol	<1400000	ug/Kg
2,4-Dinitrophenol	<7000000	ug/Kg
4,6-Dinitro-2-Methylphenol	<7000000	ug/Kg
2-Nitrophenol	<1400000	ug/Kg
4-Nitrophenol	<7000000	ug/Kg

 See last page for explanation of symbols.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-85
ERQ Sample No.: 09/177047
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
Pentachlorophenol	<7000000	ug/Kg
Phenol	2200000	ug/Kg
2,4,6-Trichlorphenol	<1400000	ug/Kg
B/N PRIOR. POLL.		
Acenaphthene	<1400000	ug/Kg
Acenaphthylene	<1400000	ug/Kg
Anthracene	<1400000	ug/Kg
Benzidine	<7000000	ug/Kg
Benzo(A)Anthracene	<1400000	ug/Kg
Benzo(B)Fluoranthene	<1400000	ug/Kg
Benzo(K)FLuoranthene	<1400000	ug/Kg
Benzo(GHI)Perylene	<1400000	ug/Kg
Benzo(A)Pyrene	<1400000	ug/Kg
Bis(2-Chloroethoxy)Methane	<1400000	ug/Kg
Bis(2-Chloroethyl)ether	<1400000	ug/Kg
Bis(2-Chloroisopropyl)ether	<1400000	ug/Kg
Bis(2-Ethylhexyl)phthalate	25000000	ug/Kg
4-Bromophenyl Phenylether	<1400000	ug/Kg
Butylbenzylphthalate	<1400000	ug/Kg
2-Chloronaphthalene	<1400000	ug/Kg
4-Chlorophenyl Phenylether	<1400000	ug/Kg
Chrysene	<1400000	ug/Kg
Dibenzo(AH)Anthracene	<1400000	ug/Kg
1,2-Dichlorobenzene	<1400000	ug/Kg
1,3-Dichlorobenzene	<1400000	ug/Kg
1,4-Dichlorobenzene	<1400000	ug/Kg
3,3-Dichlorobenzidine	<2800000	ug/Kg
Diethylphthalate	<1400000	ug/Kg
Dimethylphthalate	<1400000	ug/Kg
Di-N-Butylphthalate	<1400000	ug/Kg
2,4-Dinitrotoluene	<1400000	ug/Kg
2,6-Dinitrotoluene	<1400000	ug/Kg
Di-N-Octylphthalate	1500000	ug/Kg
Fluoranthane	<1400000	ug/Kg
Fluorene	<1400000	ug/Kg
Hexachlorobenzene	<1400000	ug/Kg
Hexachlorobutadiene	<1400000	ug/Kg
Hexachlorocyclopentadiene	<1400000	ug/Kg
Hexachloroethane	<1400000	ug/Kg
Indeno(1,2,3-CD)pyrene	<1400000	ug/Kg
Isophorone	<1400000	ug/Kg
Naphthalene	<1400000	ug/Kg
Nitrobenzene	<1400000	ug/Kg
N-Nitrosodimethylamine	<1400000	ug/Kg
N-Nitrosodi-N-propylamine	<1400000	ug/Kg

 See last page for explanation of symbols.

Client I.D.: S-85
ERG Sample No.: 09/177047
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
N-Nitrosodiphenylamine	<1400000	ug/Kg
Phenanthrene	<1400000	ug/Kg
Pyrene	<1400000	ug/Kg
1,2,4-Trichlorobenzene	<1400000	ug/Kg
PCB		
PCB, TOTAL	23	mg/Kg
PCB 1242	<10	mg/Kg
PCB 1248	<10	mg/Kg
PCB 1254	23	mg/Kg
PCB 1260	<10	mg/Kg

Client I.D.: S-86
ERG Sample No.: 09/177048
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
MERCURY	<0.04	mg/Kg
ALUMINUM	5000	mg/Kg
ANTIMONY	<11	mg/Kg
ARSENIC	<2	mg/Kg
BARIUM	28	mg/Kg
BERYLLIUM	<0.95	mg/Kg
CADMIUM	1.4	mg/Kg
CALCIUM	29000	mg/Kg
CHROMIUM	16	mg/Kg
COBALT	6.0	mg/Kg
COPPER	14	mg/Kg
IRON	13000	mg/Kg
LEAD	5.8	mg/Kg
MAGNESIUM	10000	mg/Kg
MANGANESE	260	mg/Kg
NICKEL	18	mg/Kg
POTASSIUM	690	mg/Kg
SELENIUM	0.95	mg/Kg
SILVER	1.4	mg/Kg
SODIUM	240	mg/Kg
THALLIUM	<48	mg/Kg
VANADIUM	17	mg/Kg
ZINC	49	mg/Kg
ACID PRIOR. POLL.		
2-Chlorophenol	<400	ug/Kg
4-Chloro-3-Methylphenol	<400	ug/Kg
2,4-Dichlorophenol	<400	ug/Kg
2,4-Dimethylphenol	<400	ug/Kg
2,4-Dinitrophenol	<2000	ug/Kg

 See last page for explanation of symbols.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-86
ERG Sample No.: 09/177048
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
4,6-Dinitro-2-Methylphenol	<2000	ug/Kg
2-Nitrophenol	<400	ug/Kg
4-Nitrophenol	<2000	ug/Kg
Pentachlorophenol	<2000	ug/Kg
Phenol	<400	ug/Kg
2,4,6-Trichlorphenol	<400	ug/Kg
B/N PRIOR. POLL.		
Acenaphthene	<400	ug/Kg
Acenaphthylene	<400	ug/Kg
Anthracene	<400	ug/Kg
Benzidine	<2000	ug/Kg
Benzo(A)Anthracene	<400	ug/Kg
Benzo(B)Fluoranthene	<400	ug/Kg
Benzo(K)FLuoranthene	<400	ug/Kg
Benzo(GHI)Perylene	<400	ug/Kg
Benzo(A)Pyrene	<400	ug/Kg
Bis(2-Chloroethoxy)Methane	<400	ug/Kg
Bis(2-Chloroethyl)ether	<400	ug/Kg
Bis(2-Chloroisopropyl)ether	<400	ug/Kg
Bis(2-Ethylhexyl)phthalate	4700	ug/Kg
4-Bromophenyl Phenylether	<400	ug/Kg
Butylbenzylphthalate	<400	ug/Kg
2-Chloronaphthalene	<400	ug/Kg
4-Chlorophenyl Phenylether	<400	ug/Kg
Chrysene	<400	ug/Kg
Dibenzo(AH)Anthracene	<400	ug/Kg
1,2-Dichlorobenzene	<400	ug/Kg
1,3-Dichlorobenzene	<400	ug/Kg
1,4-Dichlorobenzene	<400	ug/Kg
3,3-Dichlorobenzidine	<800	ug/Kg
Diethylphthalate	<400	ug/Kg
Dimethylphthalate	<400	ug/Kg
Di-N-Butylphthalate	<400	ug/Kg
2,4-Dinitrotoluene	<400	ug/Kg
2,6-Dinitrotoluene	<400	ug/Kg
Di-N-Octylphthalate	480	ug/Kg
Fluoranthane	<400	ug/Kg
Fluorene	<400	ug/Kg
Hexachlorobenzene	<400	ug/Kg
Hexachlorobutadiene	<400	ug/Kg
Hexachlorocyclopentadiene	<400	ug/Kg
Hexachloroethane	<400	ug/Kg
Indeno(1,2,3-CD)pyrene	<400	ug/Kg
Isophorone	<400	ug/Kg
Naphthalene	<400	ug/Kg

 See last page for explanation of symbols.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-86
ERG Sample No.: 09/177048
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
Nitrobenzene	<400	ug/Kg
N-Nitrosodimethylamine	<400	ug/Kg
N-Nitrosodi-N-propylamine	<400	ug/Kg
N-Nitrosodiphenylamine	<400	ug/Kg
Phenanthrene	<400	ug/Kg
Pyrene	<400	ug/Kg
1,2,4-Trichlorobenzene	<400	ug/Kg

Client I.D.: S-87
ERG Sample No.: 09/177049
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
MERCURY	0.66	mg/Kg
ALUMINUM	5200	mg/Kg
ANTIMONY	<12	mg/Kg
ARSENIC	3.0	mg/Kg
BARIUM	3400	mg/Kg
BERYLLIUM	<0.99	mg/Kg
CADMIUM	7.3	mg/Kg
CALCIUM	39000	mg/Kg
CHROMIUM	31	mg/Kg
COBALT	4.2	mg/Kg
COPPER	46	mg/Kg
IRON	11000	mg/Kg
LEAD	63	mg/Kg
MAGNESIUM	9600	mg/Kg
MANGANESE	190	mg/Kg
NICKEL	18	mg/Kg
POTASSIUM	640	mg/Kg
SELENIUM	<1.0	mg/Kg
SILVER	1.8	mg/Kg
SODIUM	850	mg/Kg
THALLIUM	<50	mg/Kg
VANADIUM	18	mg/Kg
ZINC	160	mg/Kg
ACID PRIOR. POLL.		
2-Chlorophenol	<12000	ug/Kg
4-Chloro-3-Methylphenol	<12000	ug/Kg
2,4-Dichlorophenol	<12000	ug/Kg
2,4-Dimethylphenol	<12000	ug/Kg
2,4-Dinitrophenol	<6000	ug/Kg
4,6-Dinitro-2-Methylphenol	<6000	ug/Kg
2-Nitrophenol	<12000	ug/Kg

 See last page for explanation of symbols.

Client I.D.: S-87
ERG Sample No.: 09/177049
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
4-Nitrophenol	<6000	ug/Kg
Pentachlorophenol	<6000	ug/Kg
Phenol	16000	ug/Kg
2,4,6-Trichlorphenol	<12000	ug/Kg
B/N PRIOR. POLL.		
Acenaphthene	<12000	ug/Kg
Acenaphthylene	<12000	ug/Kg
Anthracene	<12000	ug/Kg
Benzidine	<60000	ug/Kg
Benzo(A)Anthracene	<12000	ug/Kg
Benzo(B)Fluoranthene	<12000	ug/Kg
Benzo(K)FLuoranthene	<12000	ug/Kg
Benzo(GHI)Perylene	<12000	ug/Kg
Benzo(A)Pyrene	<12000	ug/Kg
Bis(2-Chloroethoxy)Methane	<12000	ug/Kg
Bis(2-Chloroethyl)ether	<12000	ug/Kg
Bis(2-Chloroisopropyl)ether	<12000	ug/Kg
Bis(2-Ethylhexyl)phthalate	<12000	ug/Kg
4-Bromophenyl Phenylether	<12000	ug/Kg
Butylbenzylphthalate	<12000	ug/Kg
2-Chloronaphthalene	<12000	ug/Kg
4-Chlorophenyl Phenylether	<12000	ug/Kg
Chrysene	<12000	ug/Kg
Dibenzo(AH)Anthracene	<12000	ug/Kg
1,2-Dichlorobenzene	<12000	ug/Kg
1,3-Dichlorobenzene	<12000	ug/Kg
1,4-Dichlorobenzene	<12000	ug/Kg
3,3-Dichlorobenzidine	<24000	ug/Kg
Diethylphthalate	<12000	ug/Kg
Dimethylphthalate	<12000	ug/Kg
Di-N-Butylphthalate	<12000	ug/Kg
2,4-Dinitrotoluene	<12000	ug/Kg
2,6-Dinitrotoluene	<12000	ug/Kg
Di-N-Octylphthalate	<12000	ug/Kg
Fluoranthane	<12000	ug/Kg
Fluorene	<12000	ug/Kg
Hexachlorobenzene	<12000	ug/Kg
Hexachlorobutadiene	<12000	ug/Kg
Hexachlorocyclopentadiene	<12000	ug/Kg
Hexachloroethane	<12000	ug/Kg
Indeno(1,2,3-CD)pyrene	<12000	ug/Kg
Isophorone	<12000	ug/Kg
Naphthalene	<12000	ug/Kg
Nitrobenzene	<12000	ug/Kg
N-Nitrosodimethylamine	<12000	ug/Kg
N-Nitrosodi-N-propylamine	<12000	ug/Kg

 See last page for explanation of symbols.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-87
ERG Sample No.: 09/177049
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
N-Nitrosodiphenylamine	<12000	ug/Kg
Phenanthrene	<12000	ug/Kg
Pyrene	<12000	ug/Kg
1,2,4-Trichlorobenzene	<12000	ug/Kg

SD-Sample damaged
FR-See field report for result
SR-See attached report
NA-Result not applicable to test

ND-Nondetected, Detection limit in ()
<-Compound or element was not detected at or above the specified detection limit listed in ()

Thank you for your business.

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	Acid/Base/Neutrals	HSL Metals	REMARKS
OH523	Greiners Lagoon				custody Seal #s 34776 34768
SAMPLERS: (Signature) Elise E Allen					MAECORP PO# 23F17-OH523

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Acid/Base/Neutrals	HSL Metals					REMARKS
S-85	9/24	1100		X	Southern Sludges	2-1 gal	X	X					Results + QA/QC To:
													Freddie Walker
													17450 S. Halsted St.
													Homewood, IL 60430
													Verbal + hard copy to:
													Deanne Geile
													c/o MAECORP
					MAECORP INCORPORATED	MAECORP INCORPORATED							213 County Rd 181
													Fremont, Ohio 43420
													419/992-4217
Samples to: ERG in Ann Arbor													

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise E Allen	9/24/87 1500				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[signature]	9-25 10:30	Bill to: MAECORP INC 17450 S. Halsted Homewood, IL 60430

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 14957

TMA
Thermo Analytical Inc.

TMA/ERG
117 North First Street
Ann Arbor, MI 48104-1399

(313) 662-3104

October 28, 1987

Freddie Walker
Maecorp, Inc.
17450 South Halsted
Homewood, IL 60430

Dear Mr. Walker,

This correspondence is in response to your question about the high detection limits reported for one of the samples submitted by Maecorp Inc.. The sample (client ID S-85, TMA ID 09/177047) contained extremely high levels of phenol (2,200,000 ug/Kg) and bis(2-ethylhexyl)phthalate (25,000,000 ug/Kg). The high levels of the positive analytes contributed to the dilution which was requirec to keep the analysis within the instrument linearity range. Samples that require dilutions of this magnitude exhibit high detection limits for all of the analytes. Furthermore, when samples exhibit positive analytes at this leve it is impractical to expect low detection limits on the other analytes.

If you have any further questions or comments please do not hesitate to contac me directly at TMA's Ann Arbor laboratory facility at (313) 662-3104.

Sincerely,

Joseph A. Hnatow

Joseph A. Hnatow
Manager, Organics Dept.

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TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

117 N. FIRST
ANN ARBOR, MICHIGAN 48104 (313) 662-3104

Client P.O. 23276-OH523
Report: 28426

Samples Recvd: 09-25-87
Refer Questions To:
ROBYN WOOLEY LETWIN

Client:
MAECORP INCORPORATED
17450 SOUTH HALSTED ROAD
HOMEWOOD, IL 60430
Attention: FREDDIE WALKER

Approved: [signature]

***
Residual Samples Will Be Held
TWO WEEKS
***

Client I.D.: S-85
ERG Sample No.: 09/177047
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
MERCURY	0.73	mg/Kg
ALUMINUM	380	mg/Kg
ANTIMONY	<1.2	mg/Kg
ARSENIC	2.9	mg/Kg
BARIUM	11	mg/Kg
BERYLLIUM	<0.10	mg/Kg
CADMIUM	12	mg/Kg
CALCIUM	16000	mg/Kg
CHROMIUM	50	mg/Kg
COBALT	0.61	mg/Kg
COPPER	290	mg/Kg
IRON	1000	mg/Kg
LEAD	87	mg/Kg
MAGNESIUM	1200	mg/Kg
MANGANESE	39	mg/Kg
NICKEL	20	mg/Kg
POTASSIUM	42	mg/Kg
SELENIUM	<0.40	mg/Kg

HIGHER DETECTION LIMIT DUE TO MATRIX INTERFERENCE.

SILVER	0.64	mg/Kg
SODIUM	1900	mg/Kg
THALLIUM	<5.0	mg/Kg
VANADIUM	2.2	mg/Kg
ZINC	2100	mg/Kg
ACID PRIOR. POLL.		
2-Chlorophenol	<1400000	ug/Kg
4-Chloro-3-Methylphenol	<1400000	ug/Kg
2,4-Dichlorophenol	<1400000	ug/Kg
2,4-Dimethylphenol	<1400000	ug/Kg
2,4-Dinitrophenol	<7000000	ug/Kg
4,6-Dinitro-2-Methylphenol	<7000000	ug/Kg
2-Nitrophenol	<1400000	ug/Kg
4-Nitrophenol	<7000000	ug/Kg

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 See last page for explanation of symbols.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D : S-85
ERG Sample No. : 09/177047
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
Pentachlorophenol	<7000000	ug/Kg
Phenol	2200000	ug/Kg
2,4,6-Trichlorphenol	<1400000	ug/Kg
B/N PRIOR. POLL.		
Acenaphthene	<1400000	ug/Kg
Acenaphthylene	<1400000	ug/Kg
Anthracene	<1400000	ug/Kg
Benzidine	<7000000	ug/Kg
Benzo(A)Anthracene	<1400000	ug/Kg
Benzo(B)Fluoranthene	<1400000	ug/Kg
Benzo(K)FLuoranthene	<1400000	ug/Kg
Benzo(GHI)Perylene	<1400000	ug/Kg
Benzo(A)Pyrene	<1400000	ug/Kg
Bis(2-Chloroethoxy)Methane	<1400000	ug/Kg
Bis(2-Chloroethyl)ether	<1400000	ug/Kg
Bis(2-Chloroisopropyl)ether	<1400000	ug/Kg
Bis(2-Ethylhexyl)phthalate	25000000	ug/Kg
4-Bromophenyl Phenylether	<1400000	ug/Kg
Butylbenzylphthalate	<1400000	ug/Kg
2-Chloronaphthalene	<1400000	ug/Kg
4-Chlorophenyl Phenylether	<1400000	ug/Kg
Chrysene	<1400000	ug/Kg
Dibenzo(AH)Anthracene	<1400000	ug/Kg
1,2-Dichlorobenzene	<1400000	ug/Kg
1,3-Dichlorobenzene	<1400000	ug/Kg
1,4-Dichlorobenzene	<1400000	ug/Kg
3,3-Dichlorobenzidine	<2800000	ug/Kg
Diethylphthalate	<1400000	ug/Kg
Dimethylphthalate	<1400000	ug/Kg
Di-N-Butylphthalate	<1400000	ug/Kg
2,4-Dinitrotoluene	<1400000	ug/Kg
2,6-Dinitrotoluene	<1400000	ug/Kg
Di-N-Octylphthalate	1500000	ug/Kg
Fluoranthane	<1400000	ug/Kg
Fluorene	<1400000	ug/Kg
Hexachlorobenzene	<1400000	ug/Kg
Hexachlorobutadiene	<1400000	ug/Kg
Hexachlorocyclopentadiene	<1400000	ug/Kg
Hexachloroethane	<1400000	ug/Kg
Indeno(1,2,3-CD)pyrene	<1400000	ug/Kg
Isophorone	<1400000	ug/Kg
Naphthalene	<1400000	ug/Kg
Nitrobenzene	<1400000	ug/Kg
N-Nitrosodimethylamine	<1400000	ug/Kg
N-Nitrosodi-N-propylamine	<1400000	ug/Kg

 See last page for explanation of symbols.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-85
ERG Sample No.: 09/177047
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
N-Nitrosodiphenylamine	<1400000	ug/Kg
Phenanthrene	<1400000	ug/Kg
Pyrene	<1400000	ug/Kg
1,2,4-Trichlorobenzene	<1400000	ug/Kg
PCB		
PCB, TOTAL	23	mg/Kg
PCB 1242	<10	mg/Kg
PCB 1248	<10	mg/Kg
PCB 1254	23	mg/Kg
PCB 1260	<10	mg/Kg

Client I.D.: S-86
ERG Sample No.: 09/177048
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
MERCURY	<0.04	mg/Kg
ALUMINUM	5000	mg/Kg
ANTIMONY	<11	mg/Kg
ARSENIC	<2	mg/Kg
BARIUM	28	mg/Kg
BERYLLIUM	<0.95	mg/Kg
CADMIUM	1.4	mg/Kg
CALCIUM	29000	mg/Kg
CHROMIUM	16	mg/Kg
COBALT	6.0	mg/Kg
COPPER	14	mg/Kg
IRON	13000	mg/Kg
LEAD	5.8	mg/Kg
MAGNESIUM	10000	mg/Kg
MANGANESE	260	mg/Kg
NICKEL	18	mg/Kg
POTASSIUM	690	mg/Kg
SELENIUM	0.95	mg/Kg
SILVER	1.4	mg/Kg
SODIUM	240	mg/Kg
THALLIUM	<48	mg/Kg
VANADIUM	17	mg/Kg
ZINC	49	mg/Kg
ACID PRIOR. POLL.		
2-Chlorophenol	<400	ug/Kg
4-Chloro-3-Methylphenol	<400	ug/Kg
2,4-Dichlorophenol	<400	ug/Kg
2,4-Dimethylphenol	<400	ug/Kg
2,4-Dinitrophenol	<2000	ug/Kg

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 See last page for explanation of symbols.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-86
ERG Sample No.: 09/177048
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
4,6-Dinitro-2-Methylphenol	<2000	ug/Kg
2-Nitrophenol	<400	ug/Kg
4-Nitrophenol	<2000	ug/Kg
Pentachlorophenol	<2000	ug/Kg
Phenol	<400	ug/Kg
2,4,6-Trichlorphenol	<400	ug/Kg
B/N PRIOR. POLL.		
Acenaphthene	<400	ug/Kg
Acenaphthylene	<400	ug/Kg
Anthracene	<400	ug/Kg
Benzidine	<2000	ug/Kg
Benzo(A)Anthracene	<400	ug/Kg
Benzo(B)Fluoranthene	<400	ug/Kg
Benzo(K)FLuoranthene	<400	ug/Kg
Benzo(GHI)Perylene	<400	ug/Kg
Benzo(A)Pyrene	<400	ug/Kg
Bis(2-Chloroethoxy)Methane	<400	ug/Kg
Bis(2-Chloroethyl)ether	<400	ug/Kg
Bis(2-Chloroisopropyl)ether	<400	ug/Kg
Bis(2-Ethylhexyl)phthalate	4700	ug/Kg
4-Bromophenyl Phenylether	<400	ug/Kg
Butylbenzylphthalate	<400	ug/Kg
2-Chloronaphthalene	<400	ug/Kg
4-Chlorophenyl Phenylether	<400	ug/Kg
Chrysene	<400	ug/Kg
Dibenzo(AH)Anthracene	<400	ug/Kg
1,2-Dichlorobenzene	<400	ug/Kg
1,3-Dichlorobenzene	<400	ug/Kg
1,4-Dichlorobenzene	<400	ug/Kg
3,3-Dichlorobenzidine	<800	ug/Kg
Diethylphthalate	<400	ug/Kg
Dimethylphthalate	<400	ug/Kg
Di-N-Butylphthalate	<400	ug/Kg
2,4-Dinitrotoluene	<400	ug/Kg
2,6-Dinitrotoluene	<400	ug/Kg
Di-N-Octylphthalate	480	ug/Kg
Fluoranthane	<400	ug/Kg
Fluorene	<400	ug/Kg
Hexachlorobenzene	<400	ug/Kg
Hexachlorobutadiene	<400	ug/Kg
Hexachlorocyclopentadiene	<400	ug/Kg
Hexachloroethane	<400	ug/Kg
Indeno(1,2,3-CD)pyrene	<400	ug/Kg
Isophorone	<400	ug/Kg
Naphthalene	<400	ug/Kg

 See last page for explanation of symbols.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-86
ERG Sample No.: 09/177048
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
Nitrobenzene	<400	ug/Kg
N-Nitrosodimethylamine	<400	ug/Kg
N-Nitrosodi-N-propylamine	<400	ug/Kg
N-Nitrosodiphenylamine	<400	ug/Kg
Phenanthrene	<400	ug/Kg
Pyrene	<400	ug/Kg
1,2,4-Trichlorobenzene	<400	ug/Kg

Client I.D.: S-87
ERG Sample No.: 09/177049
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
MERCURY	0.66	mg/Kg
ALUMINUM	5200	mg/Kg
ANTIMONY	<12	mg/Kg
ARSENIC	3.0	mg/Kg
BARIUM	3400	mg/Kg
BERYLLIUM	<0.99	mg/Kg
CADMIUM	7.3	mg/Kg
CALCIUM	39000	mg/Kg
CHROMIUM	31	mg/Kg
COBALT	4.2	mg/Kg
COPPER	46	mg/Kg
IRON	11000	mg/Kg
LEAD	63	mg/Kg
MAGNESIUM	9600	mg/Kg
MANGANESE	190	mg/Kg
NICKEL	18	mg/Kg
POTASSIUM	640	mg/Kg
SELENIUM	<1.0	mg/Kg
SILVER	1.8	mg/Kg
SODIUM	850	mg/Kg
THALLIUM	<50	mg/Kg
VANADIUM	18	mg/Kg
ZINC	160	mg/Kg
ACID PRIOR. POLL.		
2-Chlorophenol	<12000	ug/Kg
4-Chloro-3-Methylphenol	<12000	ug/Kg
2,4-Dichlorophenol	<12000	ug/Kg
2,4-Dimethylphenol	<12000	ug/Kg
2,4-Dinitrophenol	<6000	ug/Kg
4,6-Dinitro-2-Methylphenol	<6000	ug/Kg
2-Nitrophenol	<12000	ug/Kg

 See last page for explanation of symbols.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-87
ERG Sample No.: 09/177049
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
4-Nitrophenol	<6000	ug/Kg
Pentachlorophenol	<6000	ug/Kg
Phenol	16000	ug/Kg
2,4,6-Trichlorphenol	<12000	ug/Kg
B/N PRIOR. POLL.		
Acenaphthene	<12000	ug/Kg
Acenaphthylene	<12000	ug/Kg
Anthracene	<12000	ug/Kg
Benzidine	<60000	ug/Kg
Benzo(A)Anthracene	<12000	ug/Kg
Benzo(B)Fluoranthene	<12000	ug/Kg
Benzo(K)FLuoranthene	<12000	ug/Kg
Benzo(GHI)Perylene	<12000	ug/Kg
Benzo(A)Pyrene	<12000	ug/Kg
Bis(2-Chloroethoxy)Methane	<12000	ug/Kg
Bis(2-Chloroethyl)ether	<12000	ug/Kg
Bis(2-Chloroisopropyl)ether	<12000	ug/Kg
Bis(2-Ethylhexyl)phthalate	<12000	ug/Kg
4-Bromophenyl Phenylether	<12000	ug/Kg
Butylbenzylphthalate	<12000	ug/Kg
2-Chloronaphthalene	<12000	ug/Kg
4-Chlorophenyl Phenylether	<12000	ug/Kg
Chrysene	<12000	ug/Kg
Dibenzo(AH)Anthracene	<12000	ug/Kg
1,2-Dichlorobenzene	<12000	ug/Kg
1,3-Dichlorobenzene	<12000	ug/Kg
1,4-Dichlorobenzene	<12000	ug/Kg
3,3-Dichlorobenzidine	<24000	ug/Kg
Diethylphthalate	<12000	ug/Kg
Dimethylphthalate	<12000	ug/Kg
Di-N-Butylphthalate	<12000	ug/Kg
2,4-Dinitrotoluene	<12000	ug/Kg
2,6-Dinitrotoluene	<12000	ug/Kg
Di-N-Octylphthalate	<12000	ug/Kg
Fluoranthane	<12000	ug/Kg
Fluorene	<12000	ug/Kg
Hexachlorobenzene	<12000	ug/Kg
Hexachlorobutadiene	<12000	ug/Kg
Hexachlorocyclopentadiene	<12000	ug/Kg
Hexachloroethane	<12000	ug/Kg
Indeno(1,2,3-CD)pyrene	<12000	ug/Kg
Isophorone	<12000	ug/Kg
Naphthalene	<12000	ug/Kg
Nitrobenzene	<12000	ug/Kg
N-Nitrosodimethylamine	<12000	ug/Kg
N-Nitrosodi-N-propylamine	<12000	ug/Kg

 See last page for explanation of symbols.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-21-87

Client I.D.: S-87
ERG Sample No.: 09/177049
Matrix: SOLID
Date Sampled: 09-24-87

Parameter	Result	Units
N-Nitrosodiphenylamine	<12000	ug/Kg
Phenanthrene	<12000	ug/Kg
Pyrene	<12000	ug/Kg
1,2,4-Trichlorobenzene	<12000	ug/Kg

SD-Sample damaged
FR-See field report for result
SR-See attached report
NA-Result not applicable to test

ND-Nondetected, Detection limit in ()
<-Compound or element was not detected at or above the specified detection limit listed in ()

Thank you for your business.

TMA ERG
Thermo Analytical Inc.

Analytical Report

Project: A7394
Report Date: 10-15-87

117 N. FIRST
ANN ARBOR, MICHIGAN 48104-1399 (313) 662-3104

QUALITY CONTROL REPORT
DUPLICATE & MATRIX SPIKE ANALYSIS

Client:
MAECORP INTERNATIONAL
17450 SOUTH HALSTED RD.
HOMEWOOD, IL 60430

Samples Recvd: 9-25-87
Sample Nos.: 09/177047-09/177049

Approved: Philip J. Noble
QC COORDINATOR

Attn: FREDDIE WALKER

PARAMETER	SAMPLE NUMBER	DUPLICATES SAMPLE A	DUPLICATES SAMPLE B	RELATIVE % DIFFERENCE	MATRIX SPIKE SPIKE ADDED	MATRIX SPIKE SPIKED SAMPLE	MATRIX SPIKE PERCENT RECOVERY
		MG/KG	MG/KG		MG/KG	MG/KG	
Aluminum	176253*	55	62	12.0%			
Antimony	176253*	<12	<12	----------	48	30	63%
Arsenic	176332*	<2.0	<2.0	----------	2.1	2.2	105%
Barium	176253*	<2.0	<2.1	==========	NO SPIKE POSSIBLE		
Beryllium	176253*	<1.0	<1.0	----------			
Cadmium	176253*	<1.0	<1.0	----------	4.7	3.2	68%
Calcium	176253*	2900	2600	10.9%	NO SPIKE POSSIBLE		
Chromium	176253*	<2.0	<2.1	----------	19	16	84%
Cobalt	176253*	<0.001	<0.001	----------	48	42	88%
Copper	176253*	11	13	16.7%	24	33	88%
Iron	176253*	130	150	14.3%	95	280	147%
Lead	176253*	<6.1	<6.2	----------	48	39	81%
Magnesium	176253*	500	480	4.1%	NO SPIKE POSSIBLE		
Manganese	176253*	20	23	14.0%	48	66	93%
Nickel	176253*	<2.0	<2.1	----------	48	42	88%
Potassium	176253*	840	930	10.2%	NO SPIKE POSSIBLE		
Selenium	176351*	<2.0	<2.0	----------	1.8	1.9	106%
Silver	176253*	<1.0	<1.0	----------	4.9	2.5	51%
Sodium	176253*	160	180	11.8%	NO SPIKE POSSIBLE		
Thallium	176253*	<0.25	<0.25	----------	190	150	79%
Vandium	176253*	1.2	1.4	15.4%			
Zinc	176253*	34	44	25.6%	48	83	92%

COMMENTS: RELATIVE % DIFFERENCE = $\frac{|\text{SAMPLE A}-\text{SAMPLE B}|}{(\text{SAMPLE A}+\text{SAMPLE B})/2} * 100\%$

MATRIX SPIKE RECOVERY = $\frac{\text{SPIKED SAMPLE} - (\text{SAMPLE A}+\text{SAMPLE B})/2}{\text{SPIKE ADDED}} * 100\%$

*Sample not part of client set but included in QC subset.

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Thermo Analytical, Inc /ERG Contract: MAECORP A7394

Level: (low/med) low

	SAMPLE NO.	S1 (NBZ)	S2 (FBP)	S3 (TPH)	S4 (PHL)	S5 (2FP)	S6 (TBP)	OTHER
01	177047	------	---surrogates diluted out-			----------	--	
02	177048	99	80	72	92	93	61	
03	177049	------	---surrogates diluted out-			--------		
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

S1 (NBZ) = Nitrobenzene-d5
S2 (FBP) = 2-Fluorobiphenyl
S3 (TPH) = Terphenyl-d14
S4 (PHL) = Phenol-d6
S5 (2FP) = 2-Fluorophenol
S6 (TBP) = 2,4,6-Tribromophenol

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1987
MAECORP
INCORPORATED

S1-S51

WADSWORTH/ALERT
LABORATORIES, INC.

Sampling, testing, mobile labs

Since 1938

1600 Fourth Street, S.E./ P.O. Box 208 / Canton, OH 44701 / (216) 454-5809

ANALYTICAL REPORT

PROJECT NO. OH523

GREINERS LAGOON

Presented to :

FREDDIE WALKER

MAECORP

WADSWORTH/ALERT LABORATORIES, INC.

Bob Peters

Bob Peters
Project Manager

Marvin W Stephens

Marvin W. Stephens, Ph. D.
Vice President & Director General Laboratory Program

September 17, 1987

CORPORATE AND LABORATORY: Canton, Ohio (216) 454-5809
LABORATORY: Cleveland, Ohio (216) 642-9151
LABORATORY: Bartow, Florida (813) 533-2150
SOUTHEAST REGIONAL OFFICE: Lexington, South Carolina (803) 957-6590
24-HOUR ALERT LINE: (216) 454-8304

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 601/602 VOLATILE COMPOUNDS ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41731
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 3/87
ANALYSIS DATE : 9/ 9/87

SAMPLE ID : W-1 9/3/87 11:50

PARAMETER	RESULT (ug/l)	DETECTION LIMIT
Benzene	ND	1
Bromodichloromethane	ND	1
Bromoform	ND	1
Bromomethane	ND	1
Carbon tetrachloride	ND	1
Chlorobenzene	ND	1
Chloroethane	ND	1
2-Chloroethylvinyl ether	ND	1
Chloroform	1	1
Chloromethane	ND	1
Dibromochloromethane	ND	1
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
Dichlorodifluoromethane	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethane	ND	1
1,1-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
trans-1,3-Dichloropropene	ND	1
Ethylbenzene	ND	1
Methylene chloride	1	1
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
Toluene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	ND	1
Trichlorofluoromethane	ND	1
Vinyl chloride	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41731
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : W-1 9/3/87 11:50

	RESULT (ug/l)	DETECTION LIMIT
PCB-1016	ND	0.5
PCB-1221	ND	0.5
PCB-1232	ND	0.5
PCB-1242	ND	0.5
PCB-1248	ND	0.5
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METALS ANALYSIS REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41731
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 3/87

SAMPLE ID : W-1 9/3/87 11:50

ELEMENT	RESULT (mg/l)	DETECTION LIMIT
Silver	ND	0.01
Aluminum	0.36	0.1
Arsenic	0.032	0.005
Barium	ND	0.1
Beryllium	ND	0.005
Calcium	42	0.01
Cadmium	ND	0.01
Cobalt	ND	0.05
Chromium	ND	0.02
Copper	ND	0.01
Iron	2.1	0.05
Mercury	ND	0.005
Potassium	24	0.5
Magnesium	17	0.01
Manganese	0.6	0.01
Sodium	480	0.01
Nickel	0.09	0.04
Lead	ND	0.05
Antimony	ND	0.2
Selenium	ND	0.005
Thallium	ND	0.1
Vanadium	ND	0.1
Zinc	ND	0.01

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41731
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 3/87

SAMPLE ID : W-1 9/3/87 11:50

PARAMETER	RESULT	UNITS	DETECTION LIMIT
Dissolved Oxygen Demand	7.1	mg/l	2
Methylene Blue Active Substances	0.6	mg/l	0.1
Ammonia Nitrogen	2.9	mg/l	0.2
Oil and Grease	5	mg/l	1
Total Recoverable Phenolics	0.06	mg/l	0.01
pH	7.3	su	
Total Dissolved Solids	1,800	mg/l	5
Total Suspended Solids	70	mg/l	5

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41732
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 3/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-01 8/30/87 1604 LAGOON 4 S400, W30

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41733
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 3/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-02 8/30/87 1607 LAGOON 4 S300, W30

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41734
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 3/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-03 8/30/87 1610 LAGOON 4 S200, W30

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41735
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 3/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-04 8/30/87 1614 LAGOON 4 S100, W30

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41736
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-05 8/30/87 1617 LAGOON 4 S0, W30

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41737
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-06 8/30/87 1540 LAGOON 4 S400, W130

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41738
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-07 8/30/87 1545 LAGOON 4 S300, W130

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41739
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-08 8/30/87 1600 LAGOON 4 S200, W130

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41740
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-09 8/30/87 1605 LAGOON 4 S100, W130

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41741
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-10 8/30/87 1608 LAGOON 4 SO, W130

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41742
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-11 8/30/87 1550 LAGOON 4 S400, W230

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41743
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-12 8/30/87 1555 LAGOON 4 S300, W230

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41744
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-13 8/30/87 1600 LAGOON 4 S200, W230

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41745
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-14 8/30/87 1605 LAGOON 4 S100, W230

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41746
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-15 8/30/87 1610 LAGOON 4 SO, W230

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41747
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-16 8/30/87 1540 LAGOON 4 S400, W305

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41748
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-17 8/30/87 1545 LAGOON 4 S300, W305

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41749
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-18 8/30/87 1550 LAGOON 4 S200, W305

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41750
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-19 8/30/87 1600 LAGOON 4 S100, W305

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41751
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-20 8/30/87 1605 LAGOON 4 SO, W305

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41752
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-23 8/30/87 1610 LAGOON 4 RANDOM

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41753
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-24 8/30/87 1620 LAGOON 4 RANDOM

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41754
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-25 9/2/87 1613 EAST DITCH 0'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41755
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-26 9/2/87 1620 EAST DITCH 100'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41756
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-27 9/2/87 1628 EAST DITCH 200'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41757
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-28 9/2/87 1633 EAST DITCH 300'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	22
PCB-1221	ND	22
PCB-1232	ND	22
PCB-1242	ND	22
PCB-1248	ND	22
PCB-1254	ND	9
PCB-1260	10	9

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41758
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-29 9/2/87 1640 EAST DITCH 400'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41759
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-30 9/2/87 1640 EAST DITCH ~ 400' OILY SLUDGE

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	3
PCB-1221	ND	3
PCB-1232	ND	3
PCB-1242	ND	3
PCB-1248	ND	3
PCB-1254	ND	5
PCB-1260	5	5

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41760
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-31 9/2/87 1645 LAGOON 3 35' W. BASELINE

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41761
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-32 9/2/87 1649 LAGOON 3 S. BERM 130' W

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41762
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-33 9/2/87 1654 DUP S-32

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41763
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-34 9/2/87 1657 LAGOON 3 S. BERM 230'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41764
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-35 9/2/87 1700 LAGOON 3 S. BERM 305'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41765
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : S-36 9/2/87 1705 LAGOON 4 RANDOM

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41766
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-37 9/3/87 1055 W. BORDER 100'S

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41767
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-38 9/3/87 1050 W. BORDER 200'S

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41768
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-39 9/3/87 1047 W. BORDER 300'S

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41769
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-40 9/3/87 1042 W. BORDER 400'S

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41770
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-41 9/3/87 1055 W. BORDER 100'S 25'E

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	5
PCB-1221	ND	5
PCB-1232	ND	5
PCB-1242	ND	5
PCB-1248	ND	5
PCB-1254	ND	10
PCB-1260	11	5

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41771
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-42 9/3/87 1050 W. BORDER 200'S 25'E

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41772
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-43 9/3/87 1047 W. BORDER 300'S 25'E

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41773
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-44 9/3/87 1042 W. BORDER 400'S 25'E

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41774
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-45 9/3/87 1106 N. DITCH 0'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	1	1

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41775
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-46 9/3/87 1116 N. DITCH 200'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41776
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-47 9/3/87 1116 N. DITCH 250'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41777
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-48 9/3/87 1110 N. DITCH 100'

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41778
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-49 9/3/87 1123 N. DITCH 250' END

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41779
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-50 9/3/87 1150 SE END OF TANK AREA

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8080 PCB ANALYTICAL REPORT

COMPANY : MAECORP
LABORATORY ID : 2532-41780
SAMPLE MATRIX : SOIL

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : S-51 9/3/87 1155 NE END OF TANK AREA

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	3
PCB-1221	ND	3
PCB-1232	ND	3
PCB-1242	ND	3
PCB-1248	ND	3
PCB-1254	ND	6
PCB-1260	6	6

MATRIX INTERFERENCE

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

QUALITY CONTROL SECTION

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE DATA

LAB ID	PARAMETER	SPIKE PERCENT RECOVERY	SPK/DUP PERCENT RECOVERY
41731	Ammonia	97	95
870901	Phenols	100	98
870903	Methylene Blue Active Substances	88	92
870904	PCB in Water	80	80
41747	PCB in Solids	70	74
41766	PCB in Solids	90	93

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE DATA

LAB ID	PARAMETER	SPIKE PERCENT RECOVERY	SPK/DUP PERCENT RECOVERY
870806	Aluminum	92	78
870831	Antimony	118	104
870831	Arsenic	92	101
870902	Barium	103	104
870831	Beryllium	84	83
870901	Cadmium	95	95
870902	Calcium	102	103
870901	Chromium	95	97
870810	Cobalt	106	108
870901	Copper	95	95
870902	Iron	101	105
870901	Lead	101	100
870902	Magnesium	98	99
870902	Manganese	100	103
870831	Mercury	112	109
870901	Nickel	88	92
870902	Potassium	100	105
870831	Selenium	83	94
870901	Silver	96	99
870902	Sodium	107	107
870831	Thallium	108	100
870608	Vanadium	99	102
870901	Zinc	94	88

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE DATA

LAB ID	PARAMETER	SPIKE PERCENT RECOVERY	SPK/DUP PERCENT RECOVERY
41731	1,1-Dichloroethene	85	89
	Trichloroethene	100	102
	Chlorobenzene	98	98
	Toluene	97	108
	Benzene	95	97

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE RECOVERY
CONTROL LIMITS

PARAMETER	WATER RECOVERY CONTROL LIMITS	SOLID RECOVERY CONTROL LIMITS
Ammonia	87-115	80-122
Bromide	90-114	84-120
Chemical Oxygen Demand	88-112	88-112
Chloride	92-108	89-111
Cyanide	71-114	60-125
Fluoride	82-114	74-122
Hardness	94-106	
Methylene Blue Active Substances	75-119	64-130
Nitrate	83-119	74-128
Nitrate/Nitrite	83-119	74-128
Nitrite	93-109	89-113
Phenols	70-122	57-135
Phosphates	86-110	80-116
Sulfate	80-112	72-120

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE RECOVERY
CONTROL LIMITS

PARAMETER	WATER RECOVERY CONTROL LIMITS	SOLID RECOVERY CONTROL LIMITS
Carbofuran	1-167	1-167
GC Volatiles	51-127	51-127
Herbicides	26-118	3-141
PCB in Oil		57-117
PCB in Solids		47-127
PCB in Water	51-119	
Total Organic Carbon	61-129	
Total Organic Halogen	61-121	

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE RECOVERY
CONTROL LIMITS

PARAMETER	WATER RECOVERY CONTROL LIMITS	SOLID RECOVERY CONTROL LIMITS
Aluminum	75-125	75-125
Antimony	70-130	55-145
Arsenic	61-137	42-156
Barium	79-114	71-123
Beryllium	70-114	59-124
Cadmium	75-115	65-125
Calcium	74-115	63-126
Chromium	73-117	62-128
Copper	82-110	75-117
Iron	73-118	63-129
Lead	62-126	46-142
Magnesium	76-120	65-131
Manganese	82-113	74-120
Mercury	80-120	70-130
Nickel	79-111	71-119
Potassium	77-113	68-122
Selenium	50-130	30-150
Silver	79-110	71-118
Sodium	84-112	77-119
Strontium	78-118	68-128
Thallium	62-129	45-146
Zinc	68-124	54-138

WADSWORTH/ALERT
LABORATORIES, INC.

MATRIX SPIKE RECOVERY CONTROL LIMITS

Matrix Spike Compound	Water Recovery Control Limits	Soil Recovery Control Limits
1,1-Dichloroethene	61-145	59-172
Trichloroethene	71-120	62-137
Chlorobenzene	75-130	60-133
Toluene	76-125	59-139
Benzene	76-127	66-142
1,2,4-Trichlorobenzene	39-98	38-107
Acenaphthene	46-118	31-137
2,4-Dinitrotoluene	24-96	28-89
Pyrene	26-127	35-142
N-Nitroso-Di-n-Propylamine	41-116	41-126
1,4-Dichlorobenzene	36-97	28-104
Pentachlorophenol	9-103	17-109
Phenol	12-89	26-90
2-Chlorophenol	27-123	25-102
4-Chloro-3-Methylphenol	23-97	26-103
4-Nitrophenol	10-80	11-114
Lindane	56-123	46-127
Heptachlor	40-131	35-130
Aldrin	40-120	34-132
Dieldrin	52-126	31-134
Endrin	56-121	42-139
4-4'DDT	38-127	23-134

WADSWORTH/ALERT
LABORATORIES, INC.

ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90904
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 4/87

SAMPLE ID : INTRA-LAB BLANK , 9 /4 /87

PARAMETER	RESULT	UNITS	DETECTION LIMIT
Cyanide	ND	mg/l	0.005
Fecal Coliform	ND	/100 ml	10
Ammonia Nitrogen	ND	mg/l	0.2
Oil and Grease	ND	mg/l	1
Phosphate Phosphorus	ND	mg/l	0.1
Total Dissolved Solids	ND	mg/l	5
Total Organic Carbon	ND	mg/l	1
Total Organic Halogen	ND	ug/l	10
Total Suspended Solids	ND	mg/l	5

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90908
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 8/87

SAMPLE ID : INTRA-LAB BLANK , 9 /8 /87

PARAMETER	RESULT	UNITS	DETECTION LIMIT
Biochemical Oxygen Demand	ND	mg/l	2
Methylene Blue Active Substances	ND	mg/l	0.1
Nitrite Nitrogen	ND	mg/l	0.04
Nitrate Nitrogen	ND	mg/l	0.1
Total Recoverable Phenolics	ND	mg/l	0.01
Total Dissolved Solids	ND	mg/l	5
Total Organic Carbon	ND	mg/l	1
Total Organic Halogen	ND	ug/l	10
Total Solids	ND	%	0.5
Total Suspended Solids	ND	mg/l	5

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METALS ANALYSIS REPORT

COMPANY : Wadsworth/Alert Laboratories **RECEIVING DATE :** 9/ 4/87
LABORATORY ID : 9087-90904
SAMPLE MATRIX : WATER

SAMPLE ID : INTRA-LAB BLANK , 9 /4 /87

ELEMENT	RESULT (mg/l)	DETECTION LIMIT
Arsenic	ND	0.005
Barium	ND	0.1
Calcium	ND	0.01
Cadmium	ND	0.01
Chromium	ND	0.02
Copper	ND	0.01
Iron	ND	0.05
Mercury	ND	0.005
Potassium	ND	0.5
Magnesium	ND	0.01
Manganese	ND	0.01
Sodium	ND	0.01
Nickel	ND	0.04
Lead	ND	0.05
Selenium	ND	0.005
Strontium	ND	0.01
Zinc	ND	0.01

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METALS ANALYSIS REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90908
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 8/87

SAMPLE ID : INTRA-LAB BLANK , 9 /8 /87

ELEMENT	RESULT (mg/l)	DETECTION LIMIT
Silver	ND	0.01
Aluminum	ND	0.1
Arsenic	ND	0.005
Beryllium	ND	0.005
Cadmium	ND	0.01
Cobalt	ND	0.05
Chromium	ND	0.02
Copper	ND	0.01
Iron	ND	0.05
Mercury	ND	0.002
Molybdenum	ND	0.5
Nickel	ND	0.04
Lead	ND	0.05
Antimony	ND	0.2
Selenium	ND	0.005
Tin	ND	1
Titanium	ND	0.01
Thallium	ND	0.1
Vanadium	ND	0.05
Zinc	ND	0.01
Zirconium	ND	0.05

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9287-92903
SAMPLE MATRIX : SOLID

RECEIVING DATE : 9/ 3/87
EXTRACTION DATE : 9/ 3/87
ANALYSIS DATE : 9/ 9/87

SAMPLE ID : INTRA-LAB BLANK , 9 /3 /87

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90904
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 4/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 5/87

SAMPLE ID : INTRA-LAB BLANK , 9 /4 /87

	RESULT (ug/l)	DETECTION LIMIT
PCB-1016	ND	0.5
PCB-1221	ND	0.5
PCB-1232	ND	0.5
PCB-1242	ND	0.5
PCB-1248	ND	0.5
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

PCB ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9287-92904
SAMPLE MATRIX : SOLID

RECEIVING DATE : 9/ 4/87
EXTRACTION DATE : 9/ 4/87
ANALYSIS DATE : 9/ 4/87

SAMPLE ID : INTRA-LAB BLANK , 9 /4 /87

	RESULT (mg/kg)	DETECTION LIMIT
PCB-1016	ND	1
PCB-1221	ND	1
PCB-1232	ND	1
PCB-1242	ND	1
PCB-1248	ND	1
PCB-1254	ND	1
PCB-1260	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8010/8020 VOLATILE COMPOUNDS ANALYTICAL REPORT

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90909
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 9/87
ANALYSIS DATE : 9/ 9/87
EXTRACTION DATE :

SAMPLE ID : INTRA-LAB BLANK , 9 /9 /87

PARAMETER	RESULT (ug/l)	DETECTION LIMIT
Benzene	ND	1
Benzyl chloride	ND	1
Bis(2-chloroethoxy)methane	ND	1
Bis(2-chloroisopropyl)ether	ND	1
Bromobenzene	ND	1
Bromodichloromethane	ND	1
Bromoform	ND	1
Bromomethane	ND	1
Carbon tetrachloride	ND	1
Chloracetaldehyde	ND	1
Chloral	ND	1
Chlorobenzene	ND	1
Chloroethane	ND	1
Chloroform	ND	1
1-Chlorohexane	ND	1
2-Chloroethyl vinyl ether	ND	1
Chloromethane	ND	1
Chloromethyl methyl ether	ND	1
Chlorotoluene	ND	1
Dibromochloromethane	ND	1
Dibromomethane	ND	1
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
Dichlorodifluoromethane	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethane	ND	1
1,1-Dichloroethylene	ND	1
trans-1,2-Dichloroethylene	ND	1
Dichloromethane	ND	1
1,2-Dichloropropane	ND	1
1,3-Dichloropropylene	ND	1
Ethylbenzene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
1,1,1,2-Tetrachloroethane	ND	1

ND - NONE DETECTED

WADSWORTH/ALERT
LABORATORIES, INC.

METHOD 8010/8020 VOLATILE COMPOUNDS ANALYTICAL REPORT - 2

COMPANY : Wadsworth/Alert Laboratories
LABORATORY ID : 9087-90909
SAMPLE MATRIX : WATER

RECEIVING DATE : 9/ 9/87
ANALYSIS DATE : 9/ 9/87
EXTRACTION DATE :

SAMPLE ID : INTRA-LAB BLANK , 9 /9 /87

PARAMETER	RESULT (ug/l)	DETECTION LIMIT
Tetrachloroethylene	ND	1
Toluene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethylene	ND	1
Trichlorofluoromethane	ND	1
Trichloropropane	ND	1
Vinyl chloride	ND	1
Xylenes	ND	1

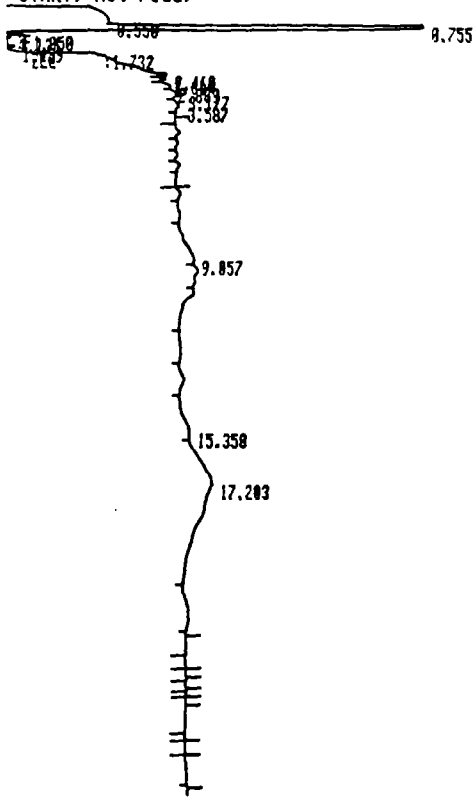
ND - NONE DETECTED

MUL FACTOR=1.0000E+00

*

2nd 41731 H2O 2nd pk

* RUN # 164 SEP 5, 1987 20:42:27
START: not ready



STOP

RUN# 164 SEP 5, 1987 20:42:27

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.550	2380	BV	.388	.48141
.755	487291	VB	.061	98.56650
1.050	949	PB	.042	.19196
1.125	409	BB	.049	.08273
1.459	451	BB	.074	.09123
2.460	652	BB	.350	.13188
2.614	345	BB	.088	.06978
2.889	191	BB	.140	.03863
3.177	403	BB	.140	.08152
3.587	207	BB	.205	.04187
9.857	112	PB	.038	.02265
17.203	988	BB	2.370	.19985

TOTAL HEIGHT= 494378
MUL FACTOR=1.0000E+00

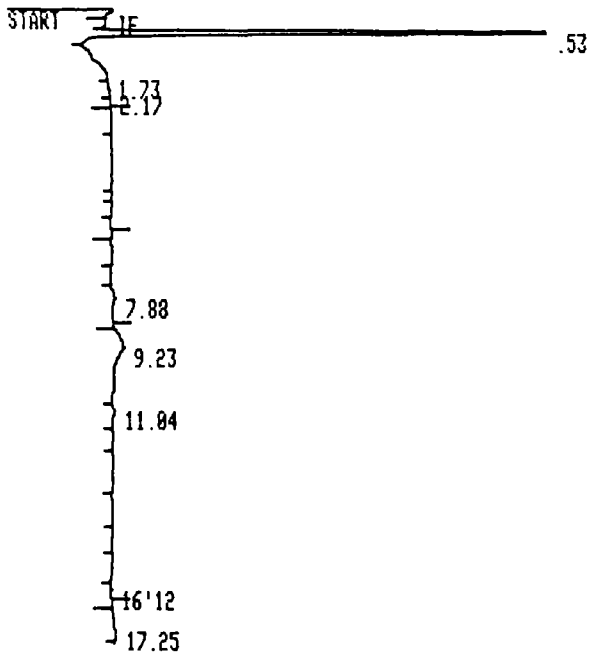
RUN # 471 SEP/04/87 08:11:43

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.24	5254	BB	0.204	0.604
0.54	825613	DSPB	0.075	94.942
1.09	9364	BB	0.075	1.077
1.75	3124	BB	0.458	0.359
2.38	5538	BB	0.633	0.637
2.93	6466	BB	0.198	0.744
7.93	10857	PB	0.345	1.249
9.91	3385	PB	0.298	0.389

TOTAL HGHT= 869600
MUL FACTOR= 1.0000E+00

41732
2nd PS



STOP

RUN # 472 SEP/04/87 08:23:52

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.53	1572693	SPB	0.086	96.819
1.73	7668	BB	0.770	0.472
2.17	3309	BB	0.269	0.204
7.88	8950	PB	0.358	0.551
9.23	22928	BB	0.795	1.412
11.04	4832	BB	0.303	0.298
17.25	3981	PB	0.409	0.245

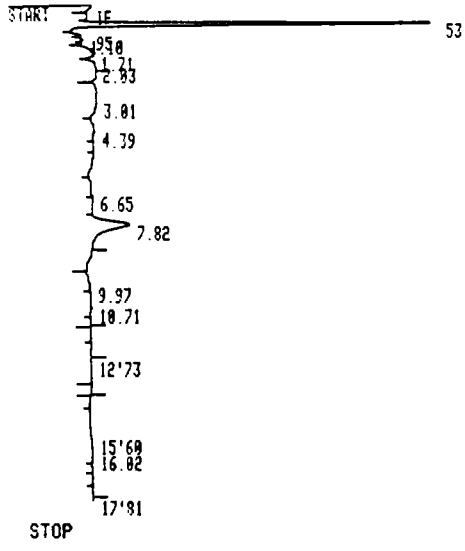
TOTAL HGHT= 1624400
MUL FACTOR= 1.0000E+00

41733
2nd PS

1.73	7668	BB	0.770	0.472
2.17	3309	BB	0.269	0.204
7.88	8950	PB	0.358	0.551
9.23	22928	BB	0.795	1.412
11.04	4832	BB	0.303	0.298
17.25	3981	PB	0.409	0.245

TOTAL HGHT= 1624400
MUL FACTOR= 1.0000E+00

41733 2nd RS



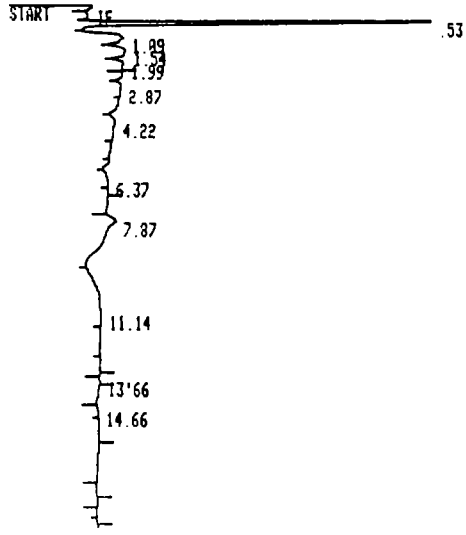
RUN # 473 SEP/04/87 08:42:23

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.53	1084981	SPB	0.091	84.971
0.95	12105	BB	0.071	0.948
1.10	4864	BB	0.073	0.381
1.71	25332	PB	0.416	1.984
2.03	15005	BB	0.230	1.175
3.01	15006	BB	0.978	1.175
4.39	7965	BB	0.439	0.624
6.65	2092	PB	0.643	0.164
7.82	98271	PB	0.388	7.696
9.97	4290	PB	0.367	0.336
10.71	4005	BB	0.594	0.314
16.02	2967	PB	0.800	0.232

TOTAL HGHT= 1276900
MUL FACTOR= 1.0000E+00

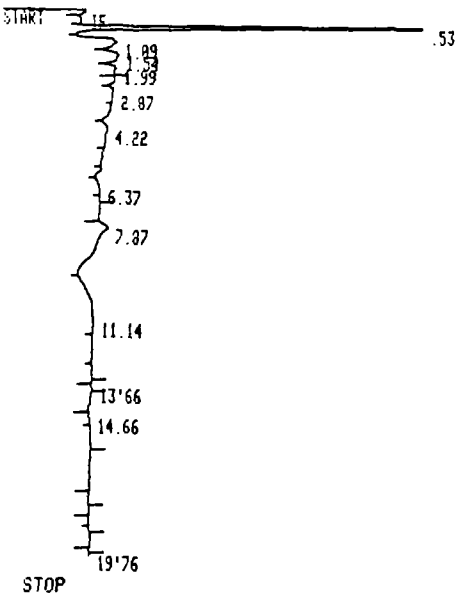
41734 2nd RS



RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.53	1084981	SPB	0.091	84.971
0.95	12105	BB	0.071	0.948
1.10	4864	BB	0.073	0.381
1.71	25332	PB	0.416	1.984
2.03	15005	BB	0.230	1.175
3.01	15006	BB	0.978	1.175
4.39	7965	BB	0.439	0.624
6.65	2092	PB	0.643	0.164
7.82	98271	PB	0.388	7.696
9.97	4290	PB	0.367	0.336
10.71	4005	BB	0.594	0.314
16.02	2967	PB	0.800	0.232

TOTAL HGHT= 1276900
MUL FACTOR= 1.0000E+00

A1734 2nd RS



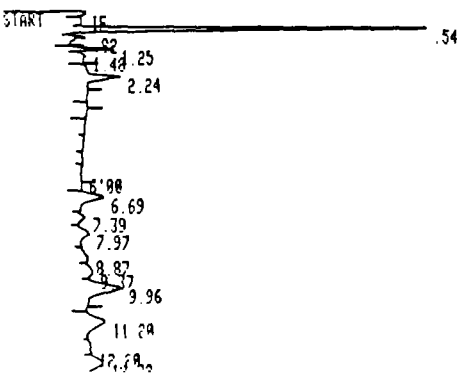
RUN # 474 SEP/04/87 09:01:07

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.53	1063538	SPB	0.092	83.382
1.09	70757	BB	0.334	5.547
1.54	41470	BB	0.364	3.251
1.99	23256	BB	0.203	1.823
2.87	11765	PB	0.319	0.922
4.22	12983	PB	0.502	1.018
6.37	4338	PB	0.334	0.340
7.87	33092	BB	1.023	2.594
11.14	11358	BB	1.815	0.891
14.66	2938	PB	0.200	0.230

TOTAL HGHT= 1275500
MUL FACTOR= 1.0000E+00

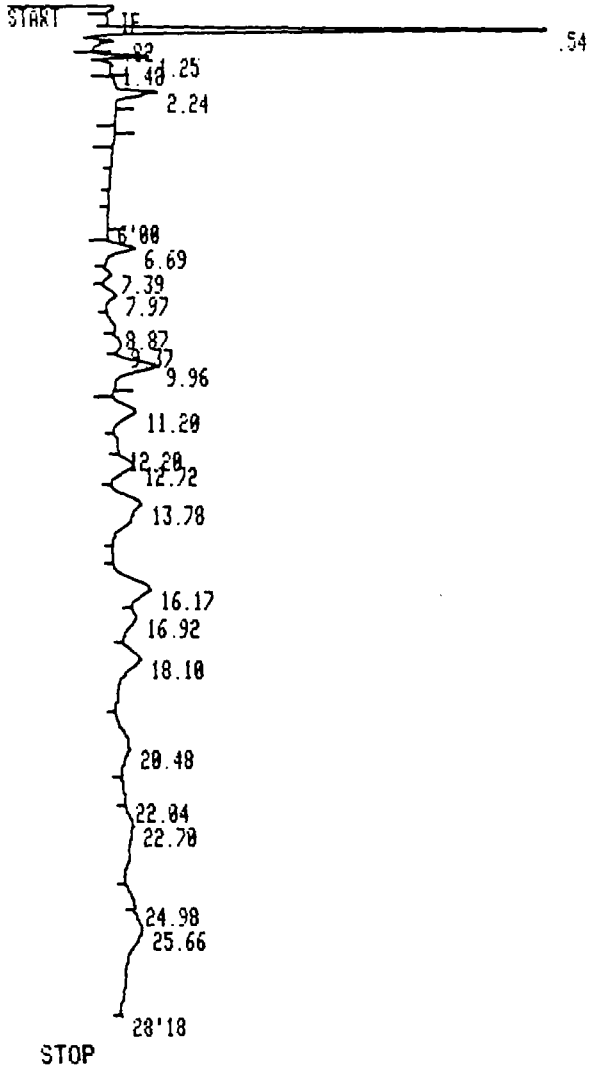
A1735 2nd RS



1.99	23256	BB	0.203	1.823
2.87	11765	PB	0.319	0.922
4.22	12983	PB	0.502	1.018
6.37	4338	PB	0.334	0.340
7.87	33092	BB	1.023	2.594
11.14	11358	BB	1.815	0.891
14.66	2938	PB	0.200	0.230

TOTAL HGHT= 1275500
MUL FACTOR= 1.0000E+00

41735
2nd
RS



RUN # 475 SEP/04/87 09:21:55

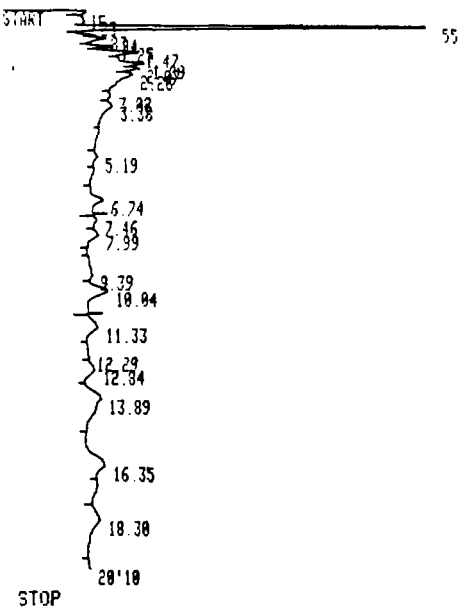
HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.54	1227714	DSPB	0.090	61.406
0.82	40940	D BB	0.115	2.048
1.25	103113	D PB	0.081	5.157
1.48	17191	BB	0.218	0.860
2.24	90289	BB	0.215	4.516
6.69	57427	BB	0.266	2.872
7.39	15400	BB	0.222	0.770
7.97	23156	BB	0.287	1.158
8.87	7785	BB	0.227	[illegible]

16.92	14724	BB	0.462	0.736
18.10	39439	BB	0.638	1.973
20.48	22453	BB	0.825	1.123
22.04	2058	BB	0.459	0.103
22.70	17067	BB	1.054	0.854
25.66	21823	BB	0.776	1.092

TOTAL HGHT= 1999300
MUL FACTOR= 1.0000E+00

H1736 2nd RS



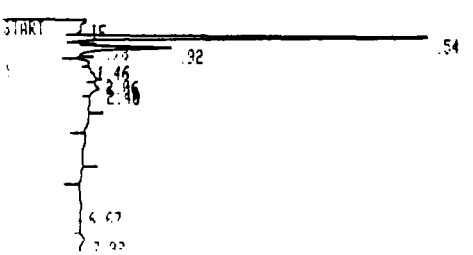
RUN # 476 SEP/04/87 10:43:37

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.23	7292	PB	0.222	0.351
0.55	1453747	DSPB	0.087	69.915
0.83	23509	BB	0.061	1.131
0.94	42358	BB	0.120	2.037
1.25	58570	D BB	0.077	2.817
1.47	88725	BB	0.138	4.267
1.89	47302	BB	0.089	2.275
2.07	30242	D BB	0.095	1.454
2.26	27507	BB	0.246	1.323
3.02	6063	BB	0.181	0.292
3.38	16186	BB	0.282	0.778
5.19	8206	PB	0.221	0.395
6.74	29337	PB	0.246	1.411
7.46	10474	BB	0.217	0.504
7.99	18957	BB	0.289	0.912
9.39	10627	VB	0.553	0.511
10.04	50919	BB	0.347	2.449
11.33	28040	BB	0.438	1.349
12.29	2613	BB	0.347	0.126
12.84	22659	BB	0.424	1.090
13.89	40724	BB	0.798	1.959
16.35	28623	BB	0.355	1.377
18.30	26621	PB	0.649	1.280

TOTAL HGHT= 2079300
MUL FACTOR= 1.0000E+00

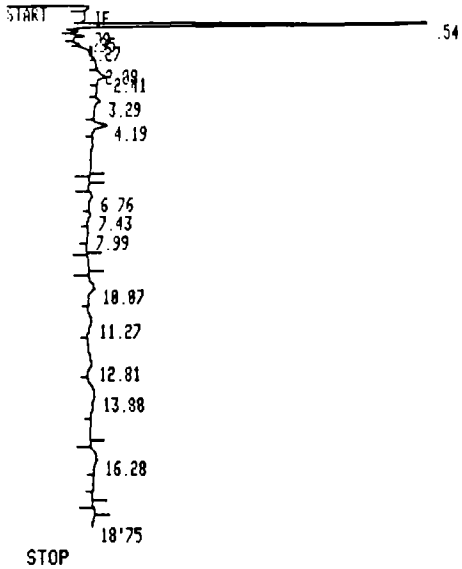
H1738 2nd RS



0.78	38932	BB	0.054	2.097
0.92	223652	BB	0.117	12.047
1.46	15649	PB	0.170	0.843
2.06	11531	BB	0.259	0.621
2.40	17340	BB	0.210	0.934
6.67	5862	BB	0.536	0.316
7.92	13038	VB	0.319	0.702
9.96	8192	PB	0.372	0.441
11.18	5753	VB	0.395	0.310
13.80	10027	PB	0.653	0.540
16.24	7066	VB	0.492	0.381
17.17	4561	BB	0.233	0.246

TOTAL HGHT= 1856500
MUL FACTOR= 1.0000E+00

41737 2nd RS



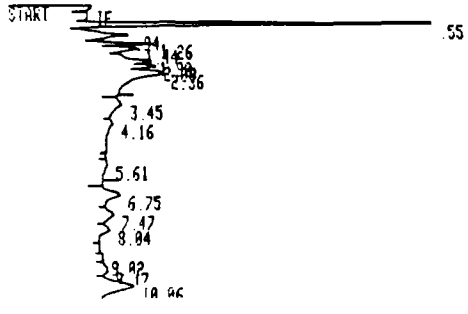
RUN # 478 SEP/04/87 13:38:43

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.54	1237589	SPB	0.089	84.510
0.79	17249	D BB	0.066	1.178
0.95	33759	D BB	0.095	2.305
1.27	6393	BB	0.069	0.437
2.08	6887	BB	1.457	0.470
2.41	23936	BB	0.189	1.635
3.29	12707	VB	0.206	0.868
4.19	35116	BB	0.184	2.398
6.76	10136	BB	0.262	0.692
7.43	7549	BB	0.251	0.516
7.99	6012	BB	0.339	0.411
10.07	16018	PB	0.332	1.094
11.27	11259	BB	0.567	0.769
12.81	12911	BB	0.712	0.882
13.88	15890	BB	0.773	1.085
16.28	11017	PB	0.470	0.752

TOTAL HGHT= 1464400
MUL FACTOR= 1.0000E+00

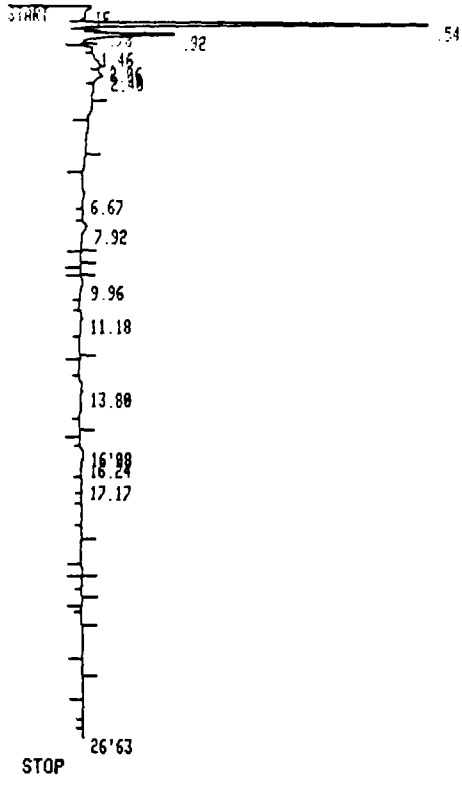
41748 2nd RS



7.46	16424	BB	0.217	[illegible]
7.99	18957	BB	0.289	0.912
9.39	10627	VB	0.553	0.511
10.04	50919	BB	0.347	2.449
11.33	28040	BB	0.438	1.349
12.29	2613	BB	0.747	0.126
12.84	22659	BB	0.424	1.090
13.89	40724	BB	0.798	1.959
16.35	28623	BB	0.355	1.377
18.30	26621	PB	0.649	1.280

TOTAL HGHT= 2079300
MUL FACTOR= 1.0000E+00

41738 2nd RS



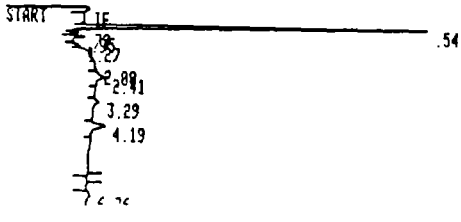
RUN # 477 SEP/04/87 13:11:02

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.54	1494921	DSBB	0.086	80.523
0.78	38932	BB	0.054	2.097
0.92	223652	BB	0.117	12.047
1.46	15649	PB	0.170	0.843
2.86	11531	BB	0.259	0.621
2.40	17340	BB	0.210	0.934
6.67	5862	BB	0.536	0.316
7.92	13038	VB	0.319	0.702
9.96	8192	PB	0.372	0.441
11.18	5753	VB	0.395	0.310
13.80	10027	PB	0.653	0.540
16.24	7066	VB	0.492	0.381
17.17	4561	BB	0.233	0.246

TOTAL HGHT= 1856500
MUL FACTOR= 1.0000E+00

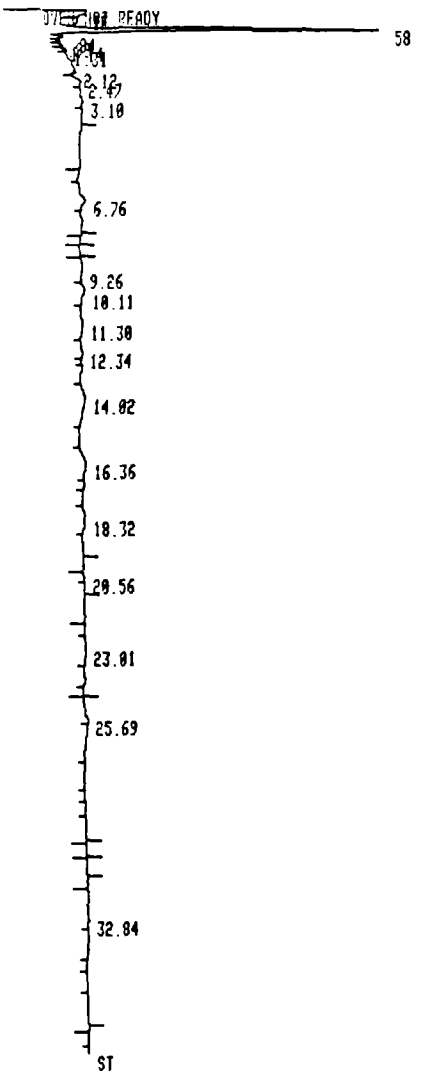
41737 2nd RS



12.90	18987	BB	0.351	0.555
13.93	136561	BB	0.598	3.989
16.39	19288	PB	0.416	0.563
17.12	57267	BB	0.524	1.673
18.35	108283	BB	0.644	3.163
20.58	32078	BB	0.722	0.937
22.98	26109	BB	0.585	0.763
26.08	94866	PB	1.152	2.771
29.40	2764	PB	0.631	0.081
33.38	26667	VB	1.942	0.779

TOTAL HGHT= 3423500
MUL FACTOR= 1.0000E+00

41739
2nd
CXR



RUN # 485 SEP/04/87 18:24:03

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	810494	SPB	0.090	82.709
0.84	15026	D BB	0.078	1.533
0.99	7437	D BB	0.063	0.759
1.14	11999	D BB	0.070	1.225
1.31	11803	BB	0.086	1.205
2.12	17905	BB	0.515	1.827
2.47	11115	BB	0.212	1.134
3.10	5531	BB	0.343	0.564
6.76	14063	PB	0.363	1.435
9.26	6946	PB	0.396	0.709
10.11	12240	BB	0.399	1.249
11.30	7208	BB	0.717	0.736
12.34	3659	BB	0.272	0.373
14.02	14499	PB	0.837	1.480
16.36	10971	PB	0.546	1.120
18.32	7371	PB	0.617	0.752
20.56	[illegible]	PB	[illegible]	[illegible]

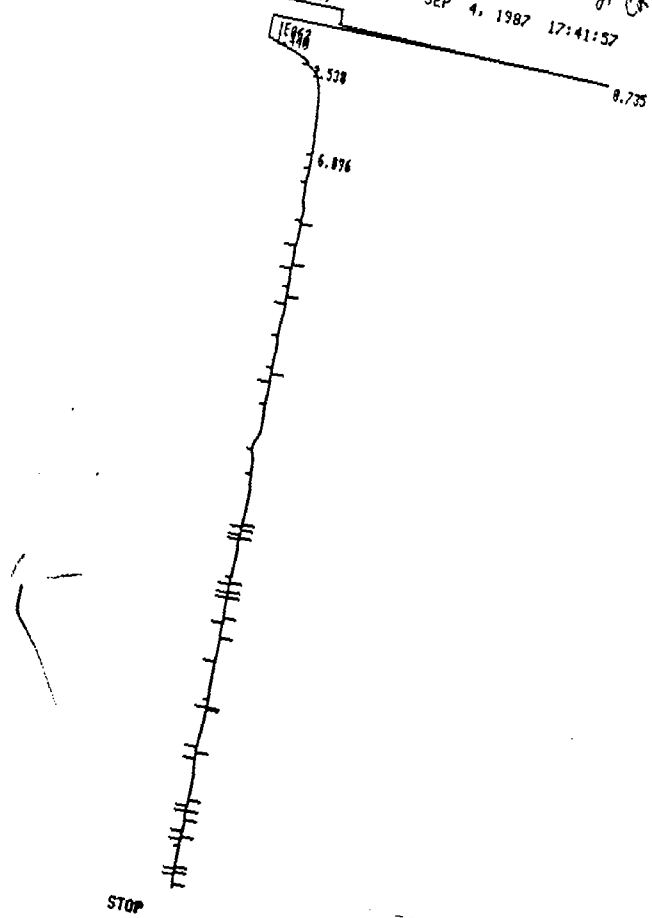
HEIGHT% GC-I, MIX

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.729	19297	VB	.089	74.60659
1.060	3340	PB	.111	12.91320
1.325	166	PB	.040	.64179
1.450	2011	BB	.123	7.77499
3.028	323	BB	1.783	1.24879
5.091	38	BB	2.021	.14692
9.405	414	PB	1.970	1.60062
20.830	276	PB	2.166	1.06708

TOTAL HEIGHT= 25863
MUL FACTOR=1.0000E+00

41740 2nd Ch18

RUN # 138
START SEP 4, 1987 17:41:57



STOP

RUN# 138
SEP 4, 1987 17:41:57

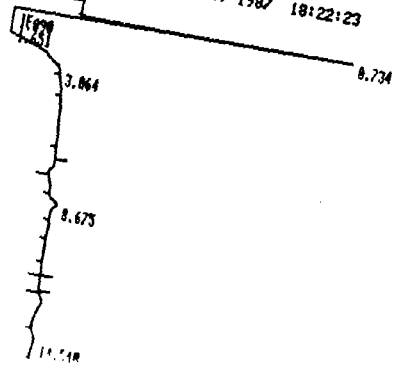
IDENTIFIER : GC-I, MIX SAMPLE# 56
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.735	19807	VB	.085	95.47843
1.062	670	PB	.093	3.22969
2.538	212	BB	1.259	1.02193
6.096	56	BB	22.843	.26994

TOTAL HEIGHT= 20745
MUL FACTOR=1.0000E+00

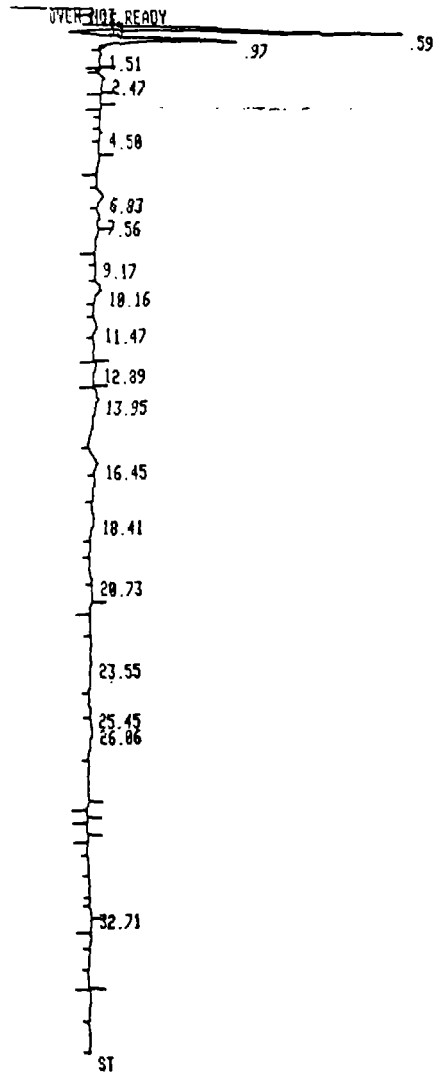
41745 2nd Ch18

RUN # 139
START SEP 4, 1987 18:22:23



TOTAL HGHT= 979930
MUL FACTOR= 1.0000E+00

41741 2nd cut



RUN # 486 SEP/04/87 19:04:26

HEIGHT%

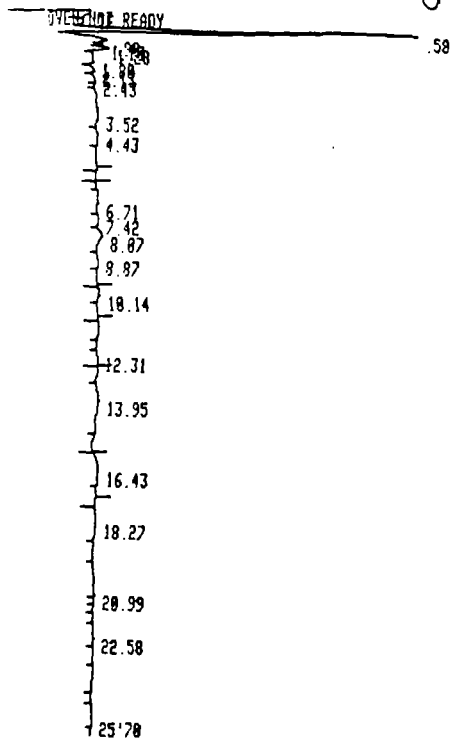
RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.35	7772	PB	0.196	0.561
0.59	842071	DSPB	0.089	60.830
0.97	384295	BB	0.143	27.761
1.51	5199	PB	0.167	0.376
2.47	19270	PB	0.315	1.392
4.50	6063	PB	0.202	0.438
6.83	13127	PB	0.309	0.948
7.56	6199	BB	0.217	0.448
9.17	2214	PB	0.225	0.160
10.16	16065	PB	0.372	1.161
11.47	10811	PB	0.382	0.781
12.89	7831	BB	0.276	0.566
13.95	14664	BB	1.298	1.059
16.45	15526	BB	0.459	1.122
18.41	8465	VB	0.738	0.612
20.73	3180	PB	0.157	0.230
23.55	6992	VB	1.165	0.505
25.45	3910	BB	0.393	0.283
26.06	7530	BB	0.846	0.544
32.71	3125	PB	0.204	0.226

TOTAL HGHT= 1384300
MUL FACTOR= 1.0000E+00

41742 2nd cut

TOTAL HGHT= 1384300
MUL FACTOR= 1.0000E+00

41742
2µl
CXB



STOP

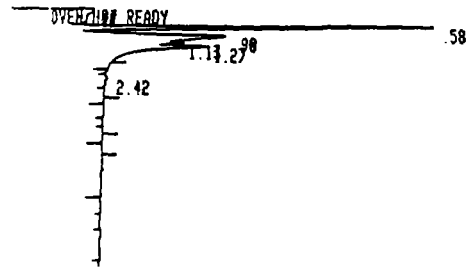
RUN # 487 SEP/04/87 19:44:53

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	897690	SPB	0.089	80.981
0.98	45599	BB	0.210	4.114
1.13	14000 D	BB	0.064	1.263
1.28	37602 D	BB	0.103	3.392
1.80	11222	BB	0.332	1.012
2.13	11013	BB	0.176	0.994
2.43	5824	BB	0.165	0.525
3.52	8868	PB	0.868	0.800
4.43	5650	BB	0.351	0.510
6.71	6095	VB	0.463	0.550
7.42	4646	BB	0.267	0.419
8.07	13526	BB	0.342	1.220
8.87	3744	BB	0.236	0.338
10.14	7324	BB	0.290	0.661
12.31	3330	PB	0.198	0.300
13.95	11938	PB	0.924	1.077
16.43	9450	BB	0.587	0.853
18.27	5688	BB	0.729	0.513
20.99	2616	PB	0.922	0.236
22.58	2696	PB	0.484	0.243

TOTAL HGHT= 1108500
MUL FACTOR= 1.0000E+00

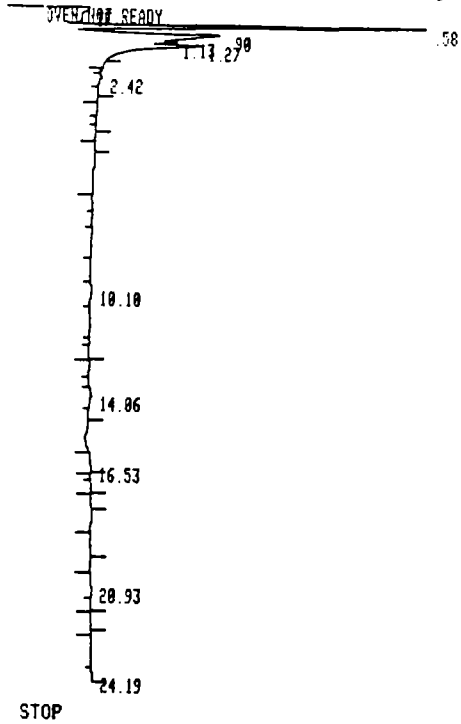
41743
2µl
CXB



2.43	5824	BB	0.165	0.525
3.52	8868	PB	0.868	0.800
4.43	5650	BB	0.351	0.510
6.71	6095	VB	0.463	0.550
7.42	4646	BB	0.267	0.419
8.07	13526	BB	0.342	1.220
8.87	3744	BB	0.236	0.338
10.14	7324	BB	0.290	0.661
12.31	3330	PB	0.198	0.300
13.95	11938	PB	0.924	1.077
16.43	9450	BB	0.587	0.853
18.27	5688	BB	0.729	0.513
20.99	2616	PB	0.922	0.236
22.58	2696	PB	0.484	0.243

TOTAL HGHT= 1108500
MUL FACTOR= 1.0000E+00

41743
2µl
CXB



STOP

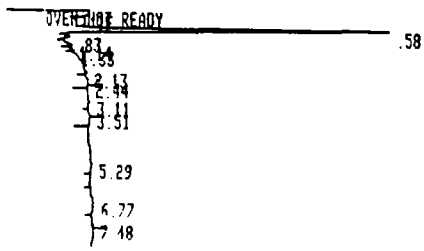
RUN # 488 SEP/04/87 20:13:00

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	947422	DSBB	0.089	68.823
0.90	236808	BB	0.164	17.202
1.13	34555	D BB	0.074	2.510
1.27	127105	D BB	0.056	9.233
2.42	7783	PB	0.192	0.565
10.10	5311	VB	0.418	0.386
14.06	5609	PB	0.412	0.408
16.53	4882	BB	0.449	0.355
20.93	3642	BB	0.499	0.265
24.19	3496	PB	0.220	0.254

TOTAL HGHT= 1376600
MUL FACTOR= 1.0000E+00

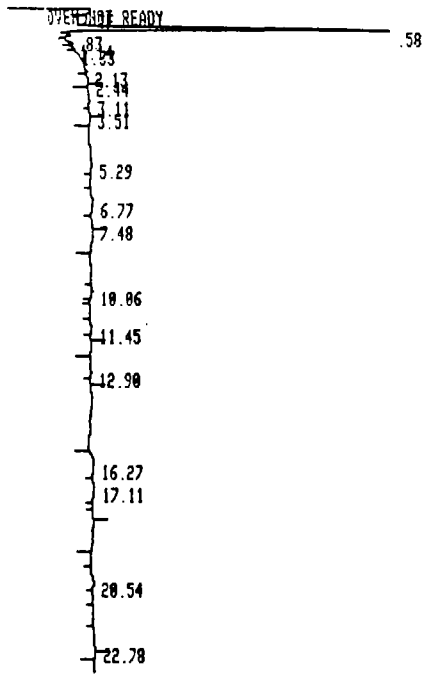
41744
2µl
CXB



0.98	236886	BB	0.164	17.202
1.13	34555 D	BB	0.074	2.510
1.27	127105 D	BB	0.056	9.233
2.42	7783	PB	0.192	0.565
10.10	5311	VB	0.418	0.386
14.06	5609	PB	0.412	0.408
16.53	4682	BB	0.449	0.355
20.93	3642	BB	0.499	0.265
24.19	3496	PB	0.220	0.254

TOTAL HGHT= 1376600
MUL FACTOR= 1.0000E+00

41744 2µl CYN



STOP

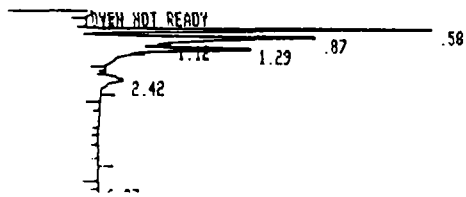
RUN # 489 SEP/04/87 20:40:12

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	820923	SPB	0.088	89.482
0.83	9124 D	BB	0.079	0.995
1.14	8974	BB	0.069	0.978
1.33	4407	BB	0.092	0.480
2.13	6860	BB	0.857	0.748
2.44	4649	BB	0.174	0.507
3.11	5052	PB	0.301	0.551
3.51	2712	BB	0.133	0.296
5.29	4336	BB	0.837	0.473
6.77	8507	PB	0.473	0.927
7.48	3950	BB	0.173	0.431
10.06	6153	VB	0.357	0.671
11.45	3859	PB	0.329	0.421
12.90	4529	BB	0.411	0.494
16.27	10825	BB	0.540	1.180
17.11	5779	BB	0.435	0.630
20.54	4526	PB	0.474	0.493
22.78	2249	PB	0.191	0.245

TOTAL HGHT= 917410
MUL FACTOR= 1.0000E+00

41758 2µl CYN

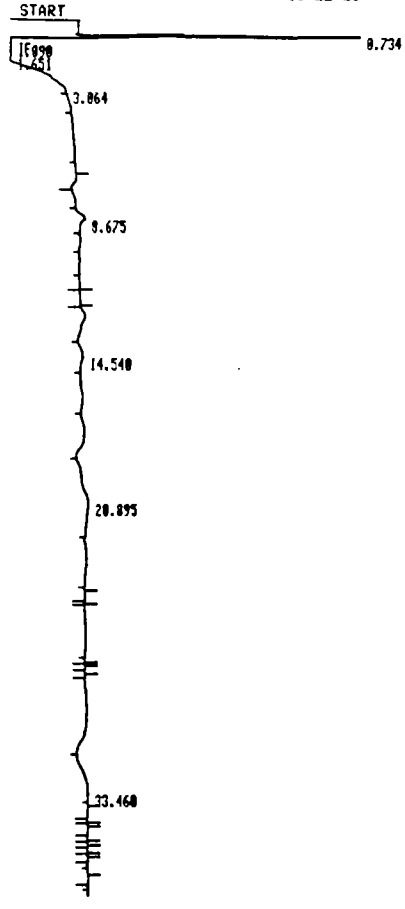


[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.862	670	PB	.093	3.22969
2.538	212	BB	1.259	1.02193
6.096	56	BB	22.843	.26994

TOTAL HEIGHT= 20745
MUL FACTOR=1.0000E+00

41745 2nd Cut

RUN # 139 SEP 4, 1987 18:22:23
START



STOP

RUN# 139 SEP 4, 1987 18:22:23

SAMPLE# 57

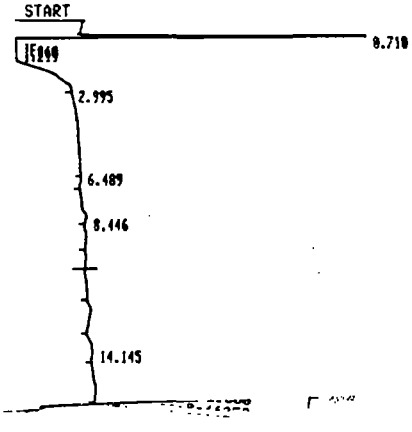
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.734	19005	VP	.080	91.80458
1.890	419	PB	.107	1.94224
3.864	250	BB	2.940	1.15886
8.675	413	VB	.418	1.91443
14.540	208	PB	.621	.96417
20.895	351	PB	1.763	1.62703
33.460	127	PB	1.455	.58870

TOTAL HEIGHT= 21573
MUL FACTOR=1.0000E+00

41746 2nd Cut

RUN # 140 SEP 4, 1987 19:02:47
START



STOP

RUN#

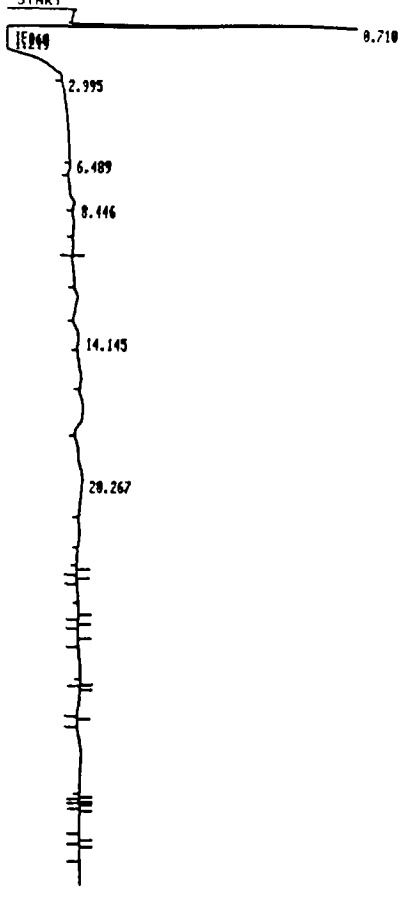
IDENTIF
HEIGHT%
R
.731
1.055
1.317
1.444
2.899
3.606
4.110
4.593
5.080
5.707
[illegible]

20.895	351	PB	1.763	1.62703
33.460	127	PB	1.455	.58870

TOTAL HEIGHT= 21573
MUL FACTOR=1.0000E+00

41746 2µl Cr8

RUN # 140 SEP 4, 1987 19:02:47
START



STOP

RUN# 140 SEP 4, 1987 19:02:47

SAMPLE# 58

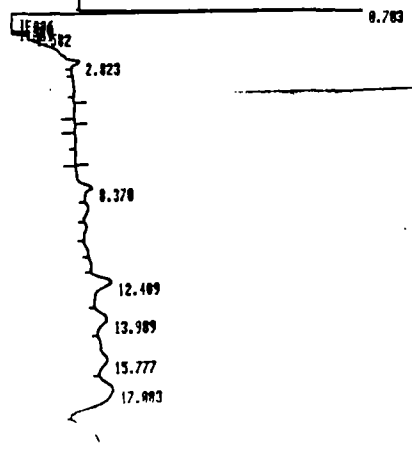
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.710	17156	BP	.069	93.14294
1.060	346	PB	.108	1.87850
1.219	103	BB	.046	.55921
2.995	192	BB	5.068	1.04240
6.489	25	BB	10.658	.13573
8.446	138	PB	.400	.74923
14.145	160	PB	.582	.86867
20.267	299	PB	1.838	1.62332

TOTAL HEIGHT= 18419
MUL FACTOR=1.0000E+00

41747 2µl Cr8

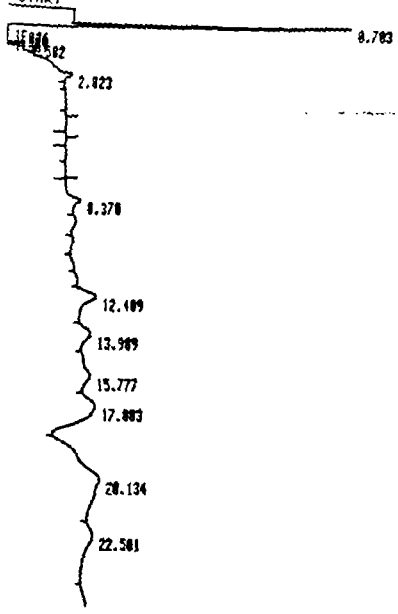
RUN # 141 SEP 4, 1987 19:43:14
START



TOTAL HEIGHT= 18419
MUL FACTOR=1.0000E+00

41747 2µl Cat

RUN # 141 SEP 4, 1987 19:43:14
START



STOP

RUN# 141 SEP 4, 1987 19:43:14

SAMPLE# 59

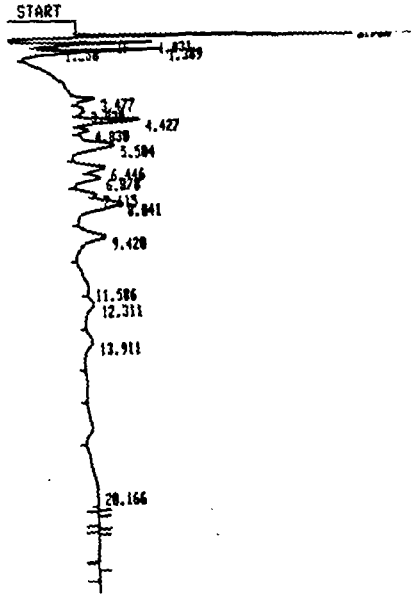
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.703	20751	BP	.071	66.43296
1.026	1869	PB	.087	5.98348
1.200	773	BB	.058	2.47471
1.361	265	BB	.066	.84838
1.582	1185	BB	.068	3.79370
2.823	955	BB	.924	3.85737
8.370	582	PB	.251	1.60712
12.409	910	VB	.526	2.91331
13.989	553	BB	.570	1.77039
15.777	449	BB	.762	1.43744
17.083	1200	BB	1.124	3.84172
20.134	1443	BB	1.870	4.61967
22.581	381	BB	.810	1.21975

TOTAL HEIGHT= 31236
MUL FACTOR=1.0000E+00

41747 MS 1:10 2µl Cat

RUN # 142 SEP 4, 1987 20:11:21
START



STOP

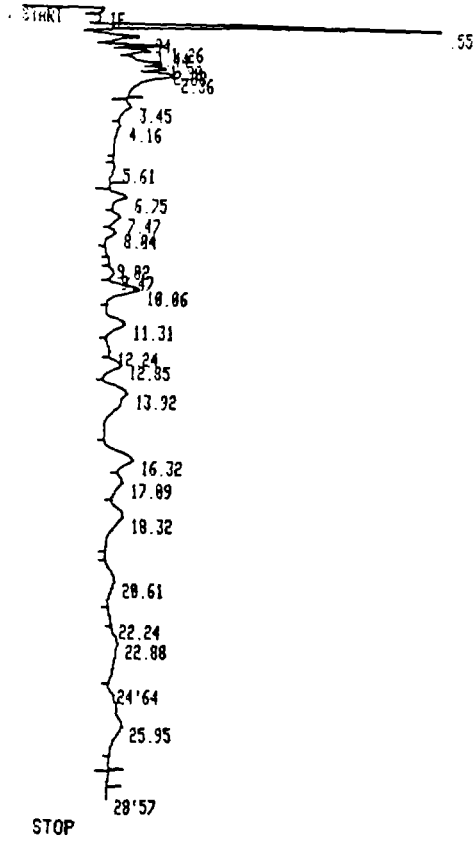
RUN# 142 SEP 4, 1987 20:11:21

SAMPLE# 60

7.99	6012	BB	0.339	0.411
10.07	16018	PB	0.332	1.094
11.27	11259	BB	0.567	0.769
12.31	12911	BB	0.212	0.882
13.88	15890	BB	0.273	1.085
16.28	11017	PB	0.470	0.752

TOTAL HGHT= 1464400
MUL FACTOR= 1.0000E+00

H1748 2nd RS



RUN # 479 SEP/04/87 14:05:47

HEIGHT%

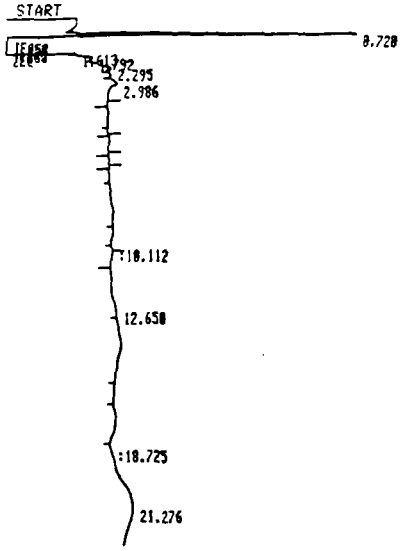
RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.55	1214678	SPB	0.090	54.321
0.94	109307	BB	0.181	4.888
1.26	123940	D BB	0.076	5.766
1.44	66491	BB	0.135	2.974
1.90	43320	BB	0.083	1.937
2.08	43654	D BB	0.096	1.952
2.36	76054	BB	0.212	3.401
3.45	19151	BB	0.307	0.856
4.16	7614	BB	0.099	0.341
5.61	8487	VB	0.339	0.380
6.75	41278	PB	0.254	1.846
7.47	23029	BB	0.304	1.030
8.04	20361	BB	0.244	0.911
9.02	5752	PB	0.255	0.257
9.47	12206	BB	0.295	0.546
10.06	80580	BB	0.355	3.604
11.31	48768	BB	0.418	2.181
12.24	4064	BB	0.303	0.182
12.85	38538	BB	0.415	1.723
13.92	62130	BB	0.831	2.779
16.32	51911	BB	0.442	2.322
17.09	17959	BB	0.478	0.803
18.32	37007	BB	0.702	1.655
20.61	22547	PB	0.780	1.008
22.24	1298	BB	0.349	0.058
22.88	18638	BB	1.121	0.834
25.95	32347	BB	1.240	1.447

TOTAL HGHT= 2236100
MUL FACTOR= 1.0000E+00

TOTAL HEIGHT= 300347
MUL FACTOR=1.0000E+00

4749 2nd 23

RUN # 134 SEP 4, 1987 15:21:03



RUN# 134 SEP 4, 1987 15:21:03

SAMPLE# 52

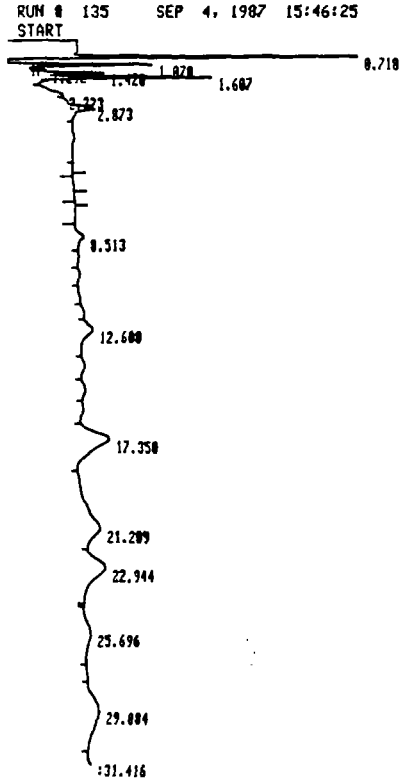
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.720	18047	BP	.072	82.31619
1.052	708	PB	.105	3.22934
1.225	357	BB	.059	1.62835
1.385	288	BB	.070	1.31363
1.613	169	BB	.036	.77084
1.792	509	BB	.151	2.32166
2.295	426	BB	.192	1.94308
2.986	494	VB	.314	2.25324
21.276	926	I PH	2.379	4.22368

TOTAL HEIGHT= 21924
MUL FACTOR=1.0000E+00

4750 2nd 25

RUN # 135 SEP 4, 1987 15:46:25



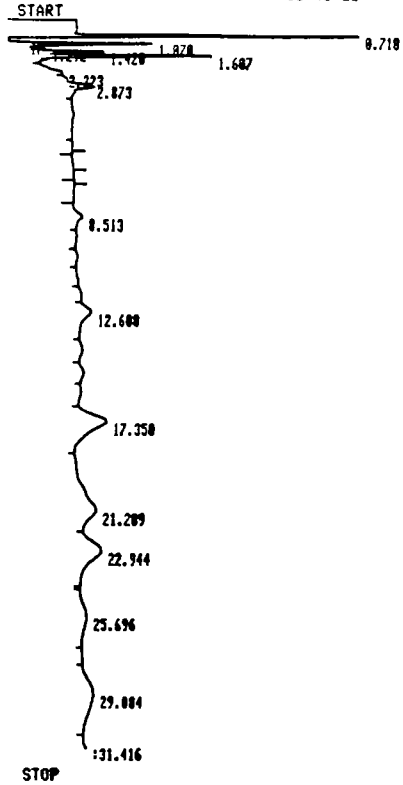
RUN# 135 SEP 4, 1987 15:46:25

.728	13847	BP	.072	82.31619
1.052	708	PB	.105	3.22934
1.225	357	BB	.059	1.62835
1.385	288	BB	.070	1.31363
1.613	169	BB	.036	.77084
1.792	509	BB	.151	2.32166
2.295	426	BB	.192	1.94308
2.986	494	VB	.314	2.25324
21.276	926 I	PH	2.379	4.22368

TOTAL HEIGHT= 21924
MUL FACTOR=1.0000E+00

H750 2nd RS

RUN # 135 SEP 4, 1987 15:46:25



RUN# 135 SEP 4, 1987 15:46:25

SAMPLE# 53

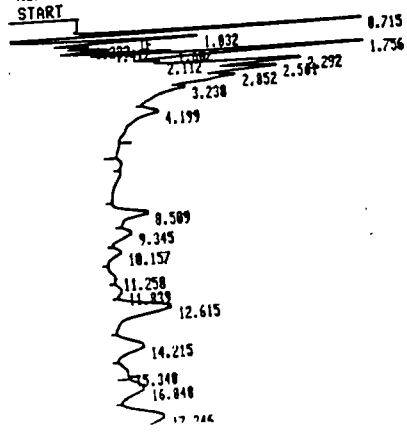
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.718	19267	BP	.075	45.56677
1.070	6801	PB	.096	16.08448
1.292	469	PB	.044	1.10900
1.420	2803	BB	.088	6.62914
1.607	7728	BB	.078	18.27685
2.323	198	PB	.089	.46827
8.513	372	BB	.363	.87979
12.600	627	VB	.632	1.48287
17.350	1492	VB	.856	3.52860
21.209	766	BB	1.162	1.81160
22.944	954	BB	.892	2.25623
25.696	277	PB	1.011	.65511
29.084	529	VB	1.585	1.25109

TOTAL HEIGHT= 42283
MUL FACTOR=1.0000E+00

H751 2nd RS

RUN # 136 SEP 4, 1987 16:20:25

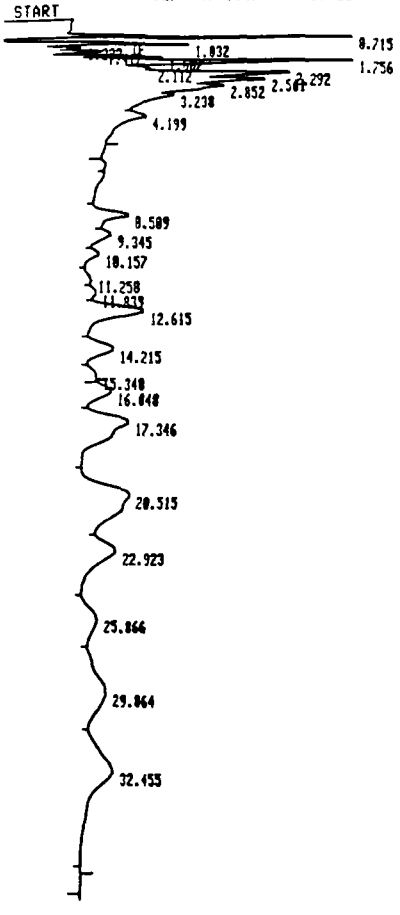


22.944	954	BB	.892	2.25623
25.696	277	PB	1.011	.65511
29.084	529	VB	1.505	1.25109

TOTAL HEIGHT= 42283
MUL FACTOR=1.0000E+00

4/75 2nd 25

RUN # 136 SEP 4, 1987 16:20:25



RUN# 136 SEP 4, 1987 16:20:25

SAMPLE# 54

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.715	20321	BP	.075	26.96846
1.032	8300	PB	.117	11.01511
1.233	1087	BB	.093	1.44258
1.417	1818	BB	.095	2.41271
1.607	4146	BB	.063	5.50225
1.756	12530	BB	.136	16.62885
2.112	210	BB	.088	.27870
2.292	5232	BB	.140	6.94350
2.561	2668	BB	.130	3.54076
2.852	1561	BB	.196	2.07164
3.238	595	BB	.096	.78964
4.199	1013	BB	.255	1.34438
8.509	1505	PB	.337	1.99732
9.345	636	BB	.382	.84405
10.157	487	BB	.344	.64631
11.258	114	BB	.199	.15129
11.839	250	BB	.341	.33178
12.615	2579	BB	.522	3.42265
14.215	1276	BB	.559	1.69341
15.348	127	BB	.384	.16854
16.048	849	BB	.519	1.12673
17.346	2062	BB	1.004	2.73653
20.515	2017	BB	1.341	2.67680
22.923	1206	BB	.916	1.60051
25.866	591	BB	1.097	.78433
29.064	873	BB	1.721	1.15858
32.455	1298	BB	1.699	1.72260

TOTAL HEIGHT= 75351
MUL FACTOR=1.0000E+00

4/75 2nd 25

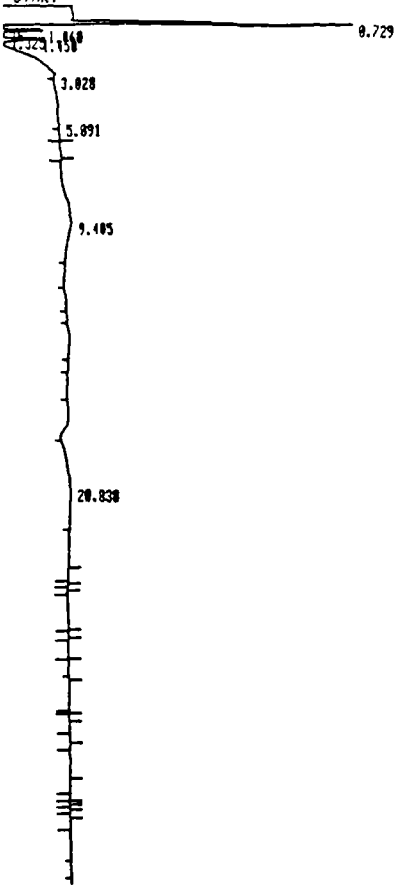
RUN # 137 SEP 4, 1987 17:01:12

20.515	2017	BB	1.341	2.67680
22.923	1206	BB	.916	1.60051
25.866	591	BB	1.097	.78433
29.064	873	BB	1.721	1.15858
32.455	1298	BB	1.699	1.72260

TOTAL HEIGHT= 75351
MUL FACTOR=1.0000E+00

4T52 2nd RS

RUN # 137 SEP 4, 1987 17:01:12
START



STOP

RUN# 137 SEP 4, 1987 17:01:12

SAMPLE# 55

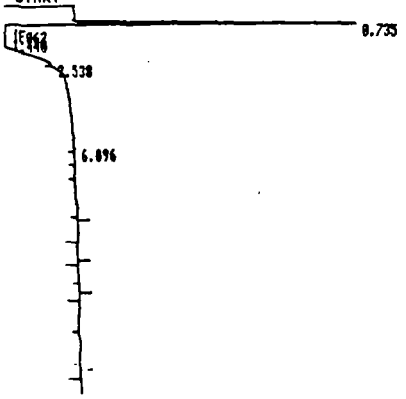
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.729	19297	VP	.089	74.60659
1.060	3340	PB	.111	12.91320
1.325	166	PB	.040	.64179
1.450	2011	BB	.123	7.77499
3.028	323	BB	1.703	1.24879
5.891	38	BB	2.821	.14692
9.405	414	PB	1.970	1.60062
20.838	276	PB	2.166	1.06708

TOTAL HEIGHT= 25865
MUL FACTOR=1.0000E+00

4T40 2nd Ch%

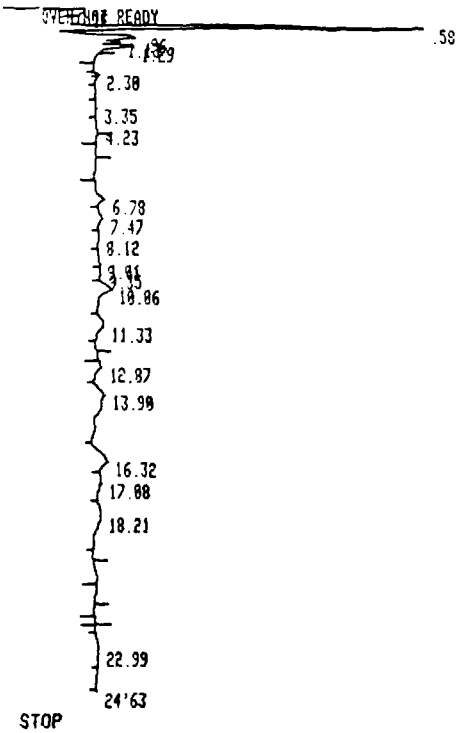
RUN # 138 SEP 4, 1987 17:41:57
START



20.74	99499	BB	0.955	0.917
23.38	58955	BB	0.798	0.543
25.13	49435	BB	0.866	0.456

TOTAL HGHT= 1.0849E+07
MUL FACTOR= 1.0000E+00

41753 2nd RS



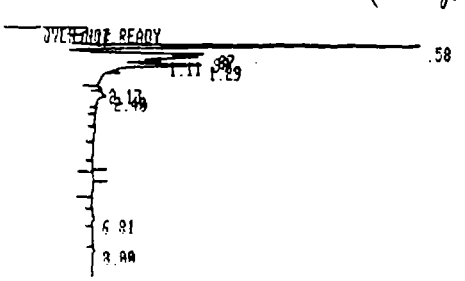
RUN # 482 SEP/04/87 16:22:04

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	1012760	DSPB	0.089	71.685
0.96	93264	BB	0.194	6.601
1.13	22938	D BB	0.065	1.624
1.29	71668	D BB	0.097	5.073
2.30	5417	PB	0.072	0.383
3.35	3412	PB	0.268	0.242
6.78	18920	BB	0.263	1.339
7.47	11753	BB	0.333	0.832
8.12	7268	BB	0.358	0.514
9.01	3414	BB	0.403	0.242
9.35	5008	BB	0.281	0.355
10.06	32998	BB	0.374	2.336
11.33	21136	BB	0.462	1.496
12.87	15666	BB	0.370	1.109
13.90	31175	BB	0.986	2.207
16.32	27112	BB	0.519	1.919
17.08	7777	BB	0.516	0.551
18.21	14249	BB	0.772	1.009
22.99	6857	VB	0.525	0.485

TOTAL HGHT= 1412800
MUL FACTOR= 1.0000E+00

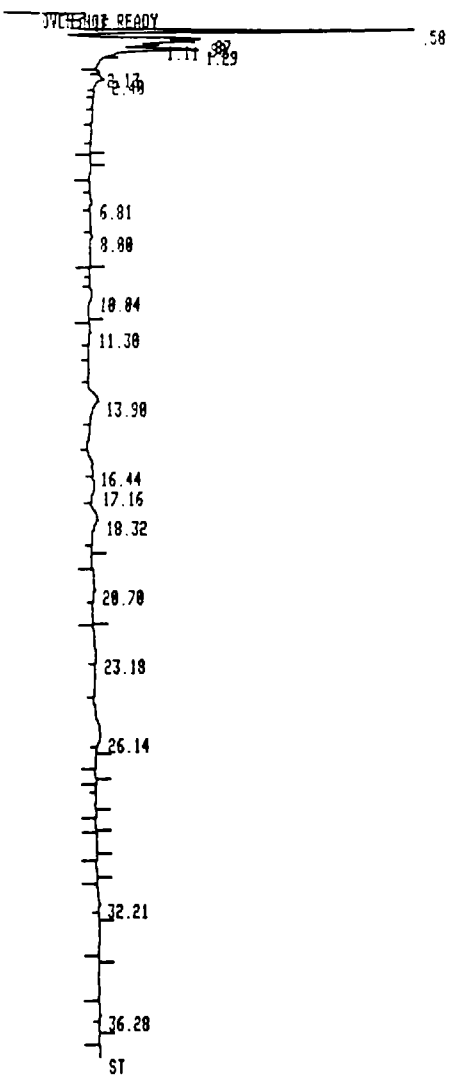
41754 2nd RS



18.21	14249	BB	0.772	1.003
22.99	6857	VB	0.525	0.485

TOTAL HGHT= 1412800
MUL FACTOR= 1.0000E+00

41754 2nd RS



RUN # 483 SEP/04/87 17:02:52

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	886011	SPB	0.088	60.161
0.87	128376	BB	0.058	8.717
0.98	76866	D BB	0.065	5.219
1.11	42688	D BB	0.065	2.899
1.29	188855	D BB	0.101	12.823
2.13	6859	D PB	0.087	0.466
2.40	21699	BB	0.193	1.473
6.81	7587	VB	0.294	0.515
8.00	7403	VB	0.326	0.503
10.04	9331	VB	0.321	0.634
11.30	6593	BB	0.425	0.448
13.90	25364	PB	0.592	1.722
16.44	5039	PB	0.520	0.342
17.16	10297	BB	0.529	0.699
18.32	19629	BB	0.580	1.333
20.70	5820	BB	0.716	0.395
23.18	4060	PB	0.690	0.276
26.14	11533	PB	0.920	0.783
32.21	4201	PB	0.635	0.285
36.28	4534	BB	0.437	0.308

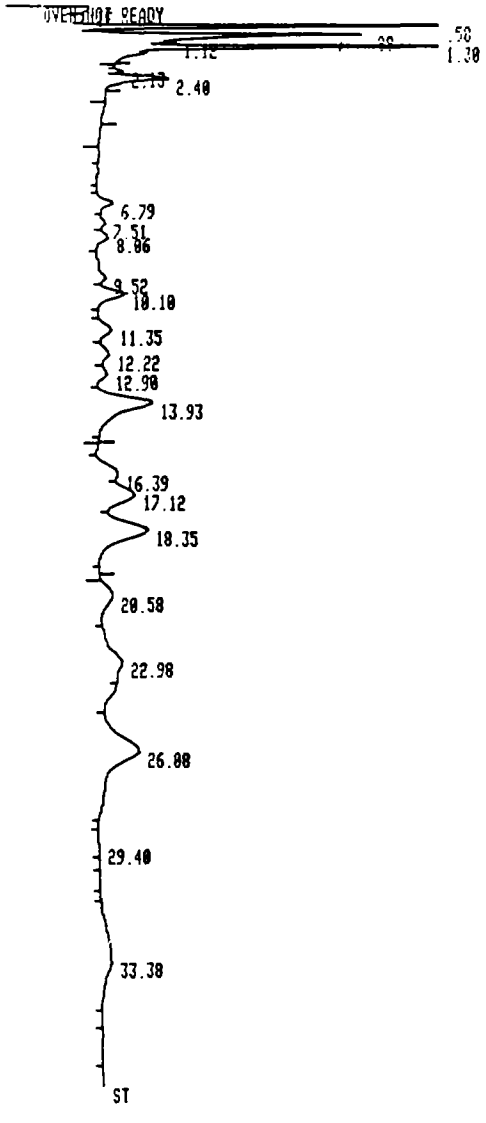
TOTAL HGHT= 1472700
MUL FACTOR= 1.0000E+00

.755 1 .1

6.81	7587	VB	0.294	0.515
8.00	7403	VB	0.326	0.503
10.04	9331	VB	0.321	0.634
11.30	6593	BB	0.425	0.448
13.90	25364	PB	0.592	1.722
16.44	5039	PB	0.520	0.342
17.16	10297	BB	0.529	0.699
18.32	19629	BB	0.580	1.333
20.70	5820	BB	0.716	0.395
23.18	4060	PB	0.690	0.276
26.14	11533	PB	0.920	0.783
32.21	4201	PB	0.635	0.285
36.28	4534	BB	0.437	0.308

TOTAL HGHT= 1472700
MUL FACTOR= 1.0000E+00

41755
2µl
ex8



RUN # 484 SEP/04/87 17:43:36

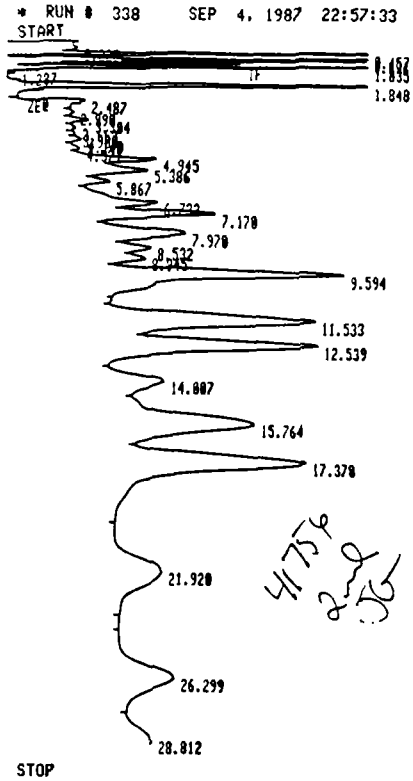
HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	1051638	SPB	0.088	30.719
0.88	595306	SPB	0.119	17.389
1.12	24914	D BB	0.057	0.728
1.30	872557	SPB	0.090	25.488
2.13	18498	D VB	0.080	0.540
2.40	141632	BB	0.195	4.137
6.79	34140	PB	0.252	0.997
7.51	10328	BB	0.261	0.302
8.06	23935	BB	0.312	0.699
9.52	14547	BB	0.319	0.425
10.10	61641	BB	0.348	1.801
11.35	31425	PB	0.423	0.918
12.22	20031	BB	0.303	0.585

[illegible]	5892	VV	.697	2.31183
11.369	5096	VV	1.008	1.99951
12.526	3189	VV	1.093	1.25126
14.294	2114	VV	1.305	.82947
15.790	1863	VV	1.267	.73098
17.155	1746	VV	1.192	.68507
21.735	715	BP	1.272	.28054
26.234	298	BV	1.215	.11693

TOTAL HEIGHT= 254863
MUL FACTOR=1.0000E+00 41756 2nd 55

* RUN # 338 SEP 4, 1987 22:57:33



STOP

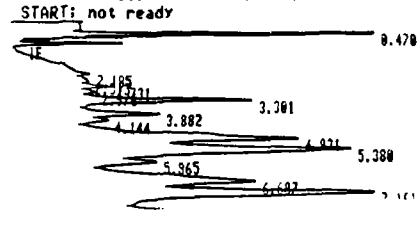
RUN# 338 SEP 4, 1987 22:57:33

IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.220	2131	BV	.341	.71831
.457	64801	VP	.865	21.84294
.691	39884	PV	.112	13.44398
1.035	55441	VV	.069	18.68790
1.287	1384	VV	.100	.46651
1.848	23096	VB	.146	7.78513
2.487	595	BP	.130	.20056
2.990	192	PP	.168	.06472
3.304	898	PV	.153	.30270
3.663	305	VV	.201	.10281
3.900	312	VV	.167	.10517
4.140	570	VV	.187	.19213
4.521	467	VV	.211	.15742
4.945	4085	VV	.253	1.37696
5.386	3692	VV	.366	1.24449
5.867	1901	VV	.286	.64078
6.733	4155	VV	.441	1.40056
7.170	6886	VV	.352	2.32111
7.970	5450	VV	.529	1.83707
8.532	3831	VV	.375	1.29134
8.945	3575	VV	.378	1.20505
9.594	12934	VV	.577	4.35976
11.533	11587	VV	.694	3.90571
12.539	11635	VV	.656	3.92139
14.007	4418	VV	.900	1.48921
15.764	8686	VV	1.206	2.92785
17.378	11053	VV	1.300	3.72571
21.920	4250	VV	2.630	1.43258
26.299	4764	VV	2.264	1.60584
28.812	3690 I	VH	1.176	1.24381

TOTAL HEIGHT= 296668
MUL FACTOR=1.0000E+00 1254 0.8M 55

* RUN # 339 SEP 4, 1987 23:27:21
START: not ready

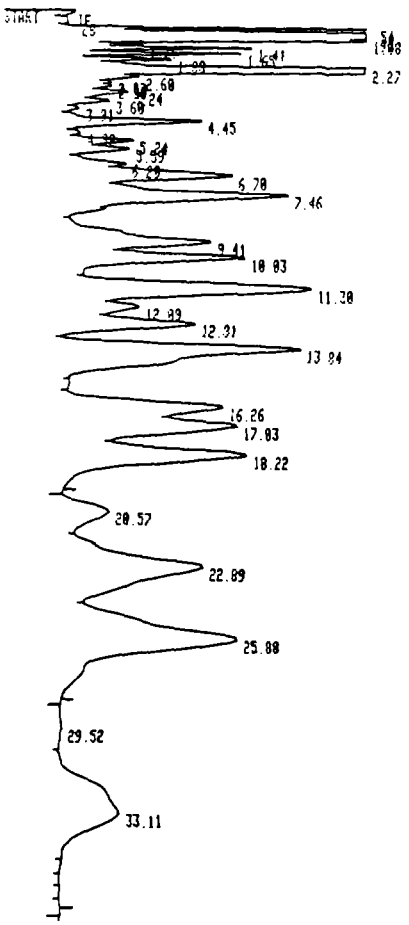


GC-1 15

LIST LIST
PEAK CAPACITY: 1150

ZERO = 15, 50.0
ATT 2↑ = 7
CHT SP = 0 5
PK WD = 0 16
THRSH = 5
AR REJ = 10000

4175 7 26
1-10 3ml
add'l clean-up



RUN # 508 SEP/05/87 16:17:14

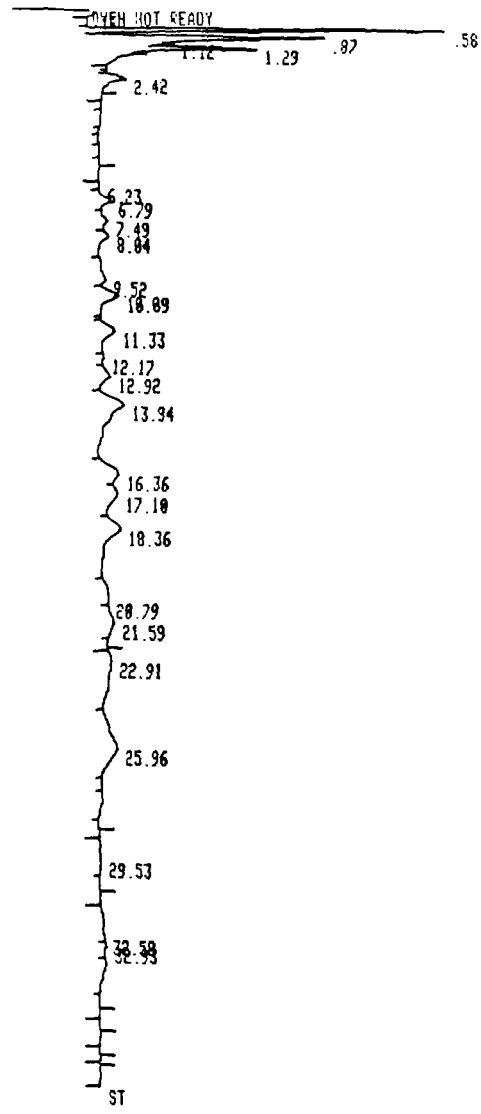
HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.28	8530	BB	0 218	0.040
0.54	2351609	SPB	0.089	10.910
0.83	2820300	SPB	0.095	13.984
0.95	2625511	DSPB	0.065	12.181
1.08	1300216	DSPB	0.066	6.032
1.26	105239	D BB	0.066	0.488
1.41	438220	D BB	0.094	2.033
1.65	452090	D BB	0.090	2.097
1.88	218755	BB	0.098	1.015
2.27	4662494	SPB	0.148	21.631
2.60	53921	D BB	0.112	0.250
2.83	12637	BB	0.080	0.059
2.98	22451	D BB	0.102	0.104
3.24	97736	BB	0.162	0.453
3.60	77906	BB	0.145	0.361
3.91	26037	BB	0.132	0.121
4.45	394714	BB	0.241	1.831
4.92	17621	BB	0.139	0.082
5.24	136071	BB	0.170	0.631
5.59	123115	BB	0.201	0.571
6.20	60694	BB	0.146	0.282
6.70	353979	BB	0.328	1.642
7.46	535785	BB	0.387	2.486
9.41	312144	PB	0 443	1.448
10.03	413048	BB	0.324	1.916
11.30	646146	BB	0.534	2.998
12.09	91788	BB	0.302	0.426
12.81	326577	BB	0.404	1.515
13.84	711992	BB	0.714	3.303
16.26	257795	PB	0.396	1.196
17 03	275218	BB	0.493	1.277
18.22	451433	BB	0 610	2.094
20.57	123145	BB	0 805	0.571
22.89	373670	BB	1.156	1.734
25.88	489217	BB	1.253	2.270
29.52	8463	BB	0.674	0.039
33.11	178295	BB	2 015	0 827

TOTAL HGHT= 2.1555E+07

TOTAL HGHT= 917410
MUL FACTOR= 1.0000E+00

41758
2µl
CYA



RUN # 490 SEP/04/87 21:06:50

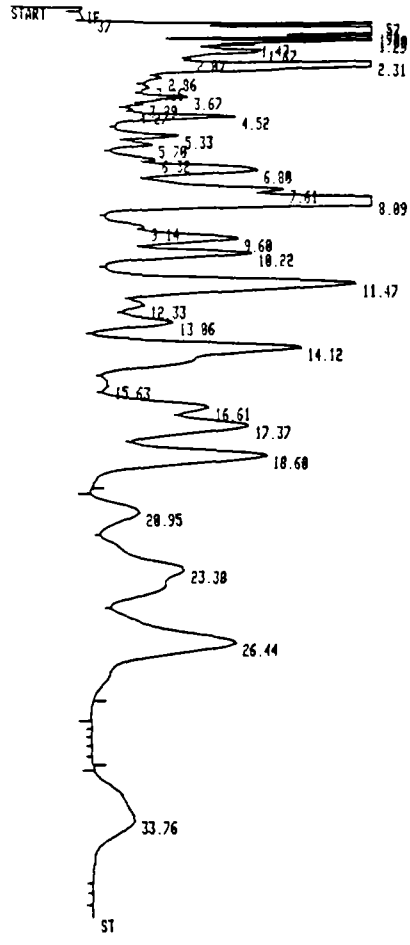
HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	914044	SPB	0.089	41.875
0.87	502256	BB	0.136	23.010
1.12	22445 D	BB	0.063	1.028
1.29	276985 D	BB	0.095	12.689
2.42	53939	VB	0.236	2.471
6.23	3878	PB	0.162	0.178
6.79	26683	BB	0.250	1.222
7.49	13876	BB	0.261	0.636
8.04	18367	BB	0.263	0.841
9.52	10725	BB	0.505	0.491
10.09	44593	BB	0.358	2.043
11.33	34692	PB	0.422	1.589
12.17	5752	BB	0.257	0.264
12.92	22897	BB	0.426	1.049
13.94	62229	BB	0.816	2.851
16.36	26962	BB	0.449	1.235
17.10	18976	BB	0.472	0.869
18.36	38080	BB	0.597	1.745
20.79	6387	BB	0.651	0.293
21.59	17057	BB	0.603	0.781
22.91	13288	BB	1.258	0.609
25.96	37309	BB	1.147	1.709
29.53	4026	PB	0.832	0.184
32.58	2762	PB	1.315	0.127
32.93	4586	BB	0.191	0.210

TOTAL HGHT= 2182800
MUL FACTOR= 1.0000E+00

TOTAL HGHT= 3194300
MUL FACTOR= 1 0000E+00

4759 1-10
22 RL



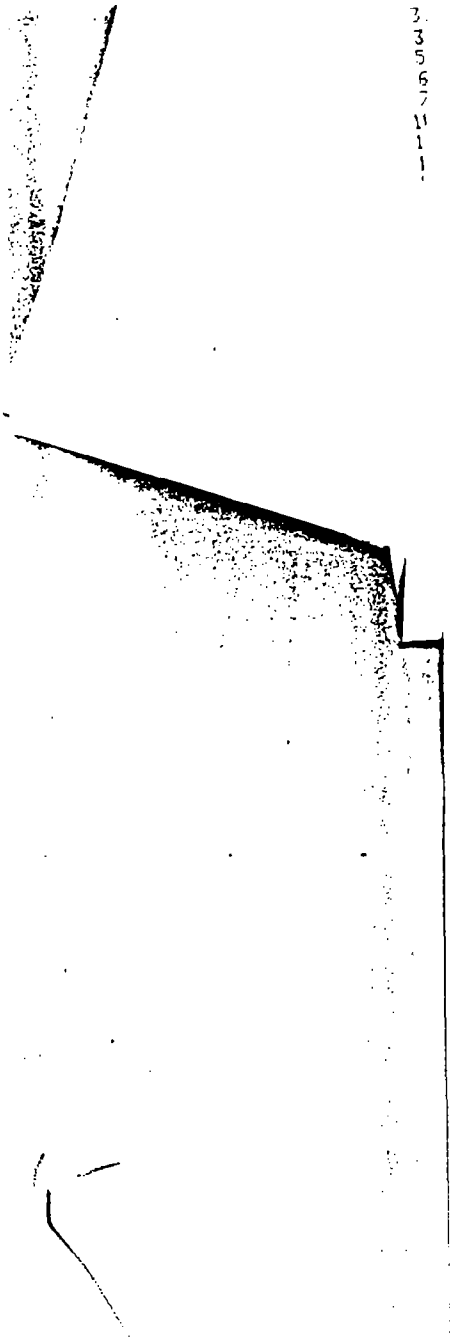
RUN # 510 SEP/05/87 19:53:00

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.37	6486	PB	0.301	0.030
0.57	1250882	SPB	0.079	5.754
0.81	5424378	SPB	0.114	24.951
0.97	1568701	DSPB	0.059	7.216
1.09	1104204	DSPB	0.065	5.079
1.29	1479786	SPB	0.081	6.807
1.43	110474	D BB	0.059	0.508
1.67	188141	BB	0.218	0.865
2.07	5054	BB	0.070	0.023
2.31	2264177	SPB	0.204	10.415
2.86	29206	D BB	0.122	0.134
3.26	19882	BB	0.145	0.092
3.67	138618	BB	0.171	0.638
3.99	19636	D BB	0.099	0.090
4.27	6046	BB	0.086	0.028
4.52	325756	BB	0.219	1.498
5.33	170088	BB	0.101	0.782
5.70	95549	BB	0.193	0.440
6.32	49671	BB	0.103	0.229
6.80	334936	BB	0.378	1.541
7.61	143719	BB	0.145	0.661
8.09	2990594	SPB	0.271	13.756
9.60	284808	BB	0.342	1.310
10.22	367152	BB	0.333	1.689
11.47	717134	BB	0.542	3.299
12.33	49831	BB	0.290	0.229
13.86	191425	BB	0.405	0.881
14.12	620375	BB	0.733	2.854
15.63	17768	BB	0.373	0.082
16.61	163407	BB	0.424	0.752
17.37	267434	BB	0.510	1.230
18.60	443343	BB	0.611	2.039
20.95	132753	PB	0.826	0.611
23.38	237198	BB	1.476	1.091
26.44	396236	BB	1.186	1 823
33.76	124951	BB	1.962	0.575

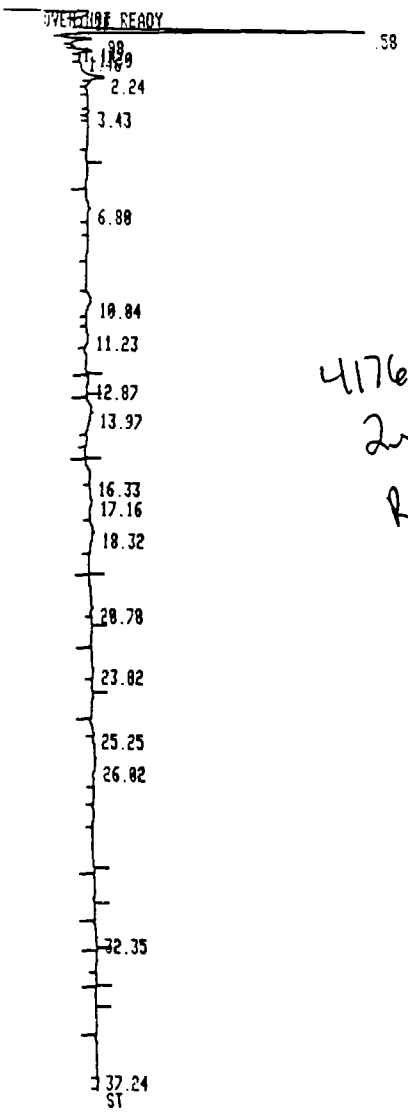
TOTAL HGHT= 2.1740E+07
MUL FACTOR= 1.0000E+00

1016/1260
.4mg .8mg
RL



20.79	6387	BB	0.651	0.293
21.59	17057	BB	0.603	0.781
22.91	13288	BB	1.258	0.609
25.96	37309	BB	1.147	1.709
29.53	4026	PB	0.832	0.184
32.58	2762	PB	1.315	0.127
32.93	4586	BB	0.191	0.210

TOTAL HGHT= 2182800
MUL FACTOR= 1.0000E+00



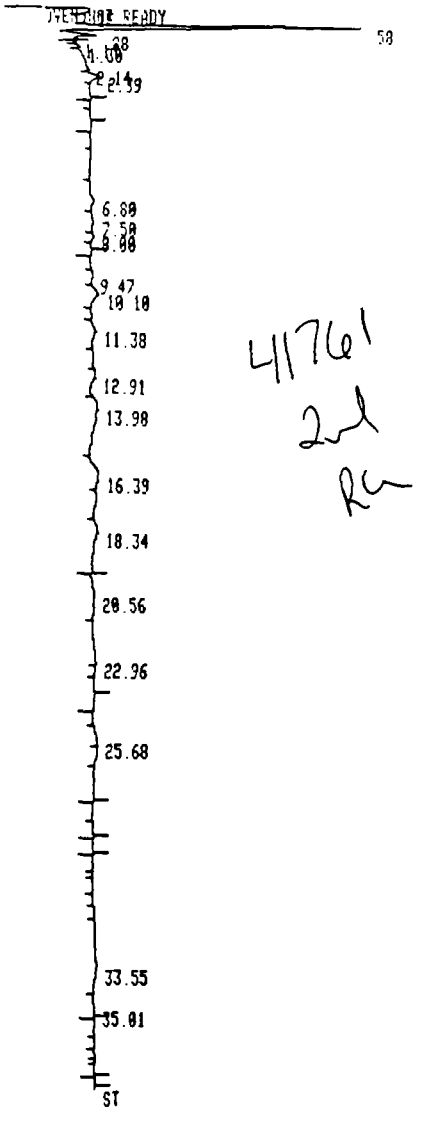
41760
2nd
RL

RUN # 491 SEP/04/87 21:47:19

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	739664	DSPB	0.089	73.954
0.88	68905	BB	0.099	6.889
1.14	5539	BB	0.057	0.554
1.30	38007	BB	0.093	3.800
1.46	4617	BB	0.082	0.462
2.24	38510	BB	0.072	3.850
3.43	4557	PB	0.140	0.456
6.80	8289	PB	0.333	0.829
10.84	12747	VB	0.403	1.275
11.23	5547	VB	0.557	0.555
12.87	5567	BB	0.251	0.557
13.97	15817	PB	0.660	1.581
16.33	6883	PB	0.414	0.688
17.16	6300	BB	0.594	0.630
18.32	11473	BB	0.616	1.147
20.78	5789	BB	0.740	0.579
23.02	4199	PB	0.711	0.420
25.25	3949	PB	0.312	0.395
26.02	6599	BB	0.942	0.660
32.35	4394	PB	0.350	0.439

MUL FACTOR= 1.0000E+00



41761
2nd
Run

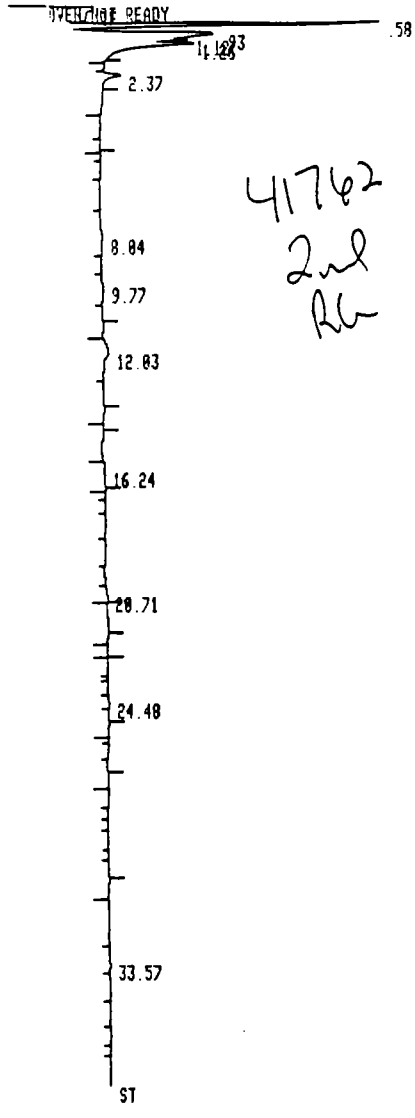
RUN # 492 SEP/04/87 22:27:48

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	719418	SPB	0.090	73.466
0.88	65195	BB	0.094	6.658
1.14	9017	D BB	0.066	0.921
1.30	12367	BB	0.083	1.263
2.14	6043	BB	0.773	0.617
2.39	27749	BB	0.171	2 834
6.80	8395	PB	0.319	0.857
7.50	6128	BB	0.282	0.626
8.00	4887	BB	0.246	0.499
9.47	5301	VB	0.294	0.541
10.10	19337	BB	0.371	1.975
11.38	10363	PB	0.387	1.058
12.91	10992	VB	0.497	1.123
13.98	21223	BB	1.142	2.167
16.39	14512	BB	0.551	1.482
18.34	14245	PB	0.577	1.455
20.56	7642	BB	0.872	0.780
22.96	2617	BB	0.798	0.267
25.68	1784	PB	0.711	0.182
33.55	10048	VB	1.669	1.026
35.01	1994	BB	0.285	0.204

TOTAL HGHT= 979260
MUL FACTOR= 1.0000E+00

TOTAL HGHT= 979260
MUL FACTOR= 1.0000E+00

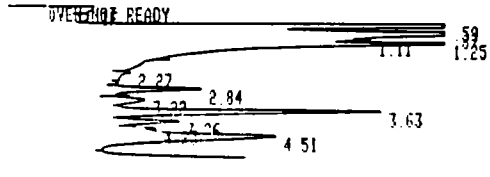


RUN # 493 SEP/04/87 23:08:25

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	753521	DSBB	0.090	71.673
0.93	179523	BB	0.184	17.076
1.12	32364	D BB	0.062	3.078
2.37	45632	PB	0.175	4.340
8.04	4800	PB	0.671	0.457
9.77	5370	PB	0.612	0.511
12.03	15634	BB	0.593	1.487
16.24	4354	BB	0.281	0.414
20.71	3245	PB	0.270	0.309
24.48	2749	PB	0.167	0.262
33.57	4139	PB	0.673	0.394

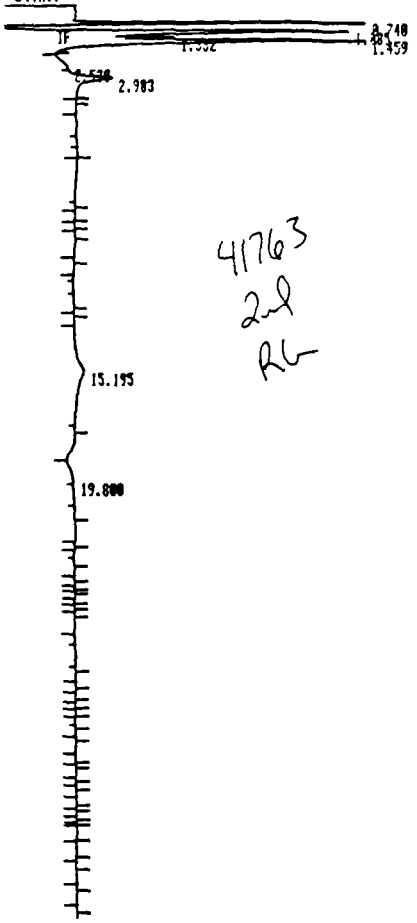
TOTAL HGHT= 1051300
MUL FACTOR= 1.0000E+00



[illegible]	[illegible]	BB	.236	2.96832	0.795
7.130	930	BB	.264	1.84986	
7.887	435	BB	.183	.86526	
8.336	1677	BB	.376	3.33572	
9.757	1547	BB	.514	3.07714	
12.764	707	VB	.596	1.40629	
14.435	506	BB	.667	1.00648	
20.680	334	PB	1.530	.66436	

TOTAL HEIGHT= 50274
MUL FACTOR=1.0000E+00

RUN # 144 SEP 4, 1987 21:05:11
START



41763
2nd
RC

STOP

RUN# 144 SEP 4, 1987 21:05:11

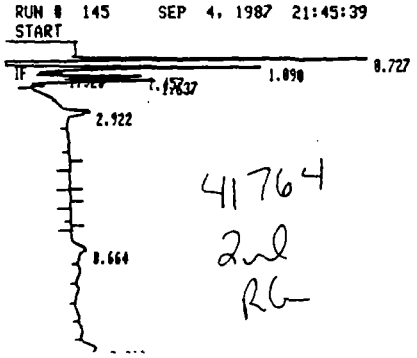
SAMPLE# 62

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.740	18208	VP	.091	36.69118
1.085	14098	PB	.133	28.40987
1.332	2239	BB	.052	4.51184
1.459	12507	BB	.101	25.20382
2.538	107	PB	.321	.21562
2.983	2015	BB	.294	4.06045
15.195	436	PB	1.235	.87859
19.800	15	PB	1.433	.03023

TOTAL HEIGHT= 49625
MUL FACTOR=1.0000E+00

RUN # 145 SEP 4, 1987 21:45:39
START

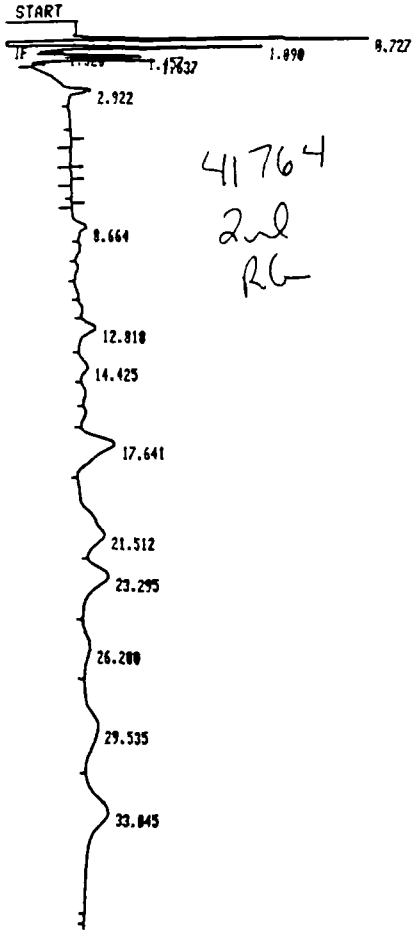


41764
2nd
RC

2.538	107	PB	.321	.21562
2.983	2015	BB	.294	4.06045
15.195	436	PB	1.235	.87859
19.800	15	PB	1.433	.03023

TOTAL HEIGHT= 49625
MUL FACTOR=1.0000E+00

RUN # 145 SEP 4, 1987 21:45:39
START



41764
2nd
RG

STOP

RUN# 145 SEP 4, 1987 21:45:39

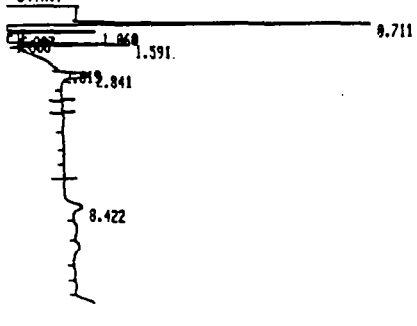
SAMPLE# 63

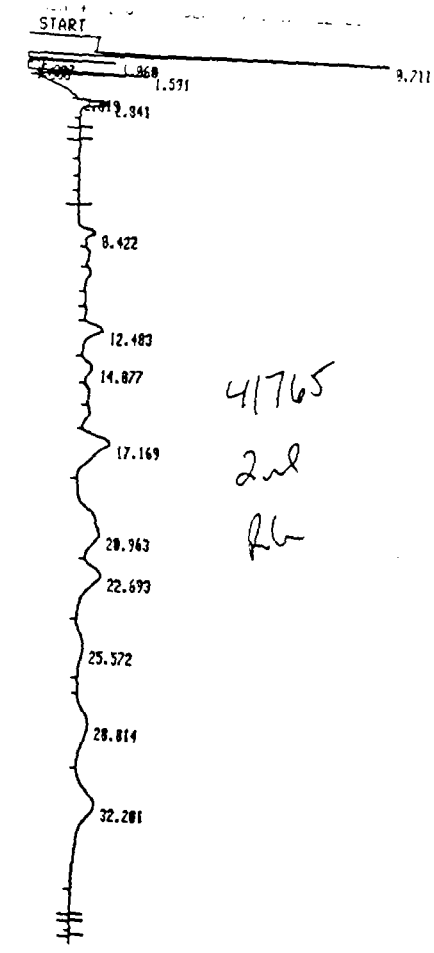
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.727	21348	BP	.878	41.19088
1.890	11973	PB	.115	23.10186
1.328	864	BB	.058	1.66708
1.457	4041	BB	.087	7.79710
1.637	4431	BB	.064	8.54960
2.922	1729	PB	.510	3.33610
8.664	510	PB	.341	.98404
12.818	803	VB	.541	1.54939
14.425	367	BB	.556	.70813
17.641	1721	VB	.901	3.32066
21.512	948	BB	1.297	1.82916
23.295	1068	BB	.906	2.06070
26.200	325	BB	1.110	.62709
29.535	606	BB	1.574	1.16928
33.045	1093	BB	1.598	2.10894

TOTAL HEIGHT= 51827
MUL FACTOR=1.0000E+00

RUN # 146 SEP 4, 1987 22:26:09
START





41765
2nd
RL

RUN# 146 SEP 4, 1987 22:26:09

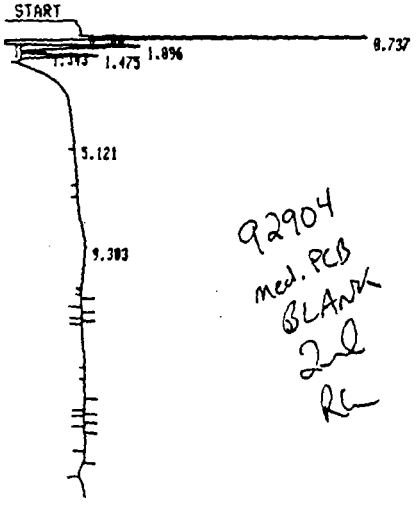
SAMPLE# 64

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.711	19951	BP	.070	50.55878
1.868	5331	PB	.064	13.50956
1.207	921	BB	.054	2.33395
1.366	249	BB	.061	.63100
1.591	5729	BB	.080	14.51814
2.619	123	BB	.072	.31170
2.841	389	BB	.039	.98578
8.422	558	PB	.175	1.41405
12.483	927	VB	.519	2.34916
14.077	410	BB	.523	1.03900
17.169	1429	VB	.906	3.62130
20.963	804	BB	1.407	2.03745
22.693	892	BB	.866	2.26046
25.572	292	BB	1.079	.73997
28.814	522	VB	1.513	1.32282
32.201	934	BB	1.541	2.36689

TOTAL HEIGHT= 39461
MUL FACTOR=1.0000E+00

RUN # 147 SEP 4, 1987 23:06:46

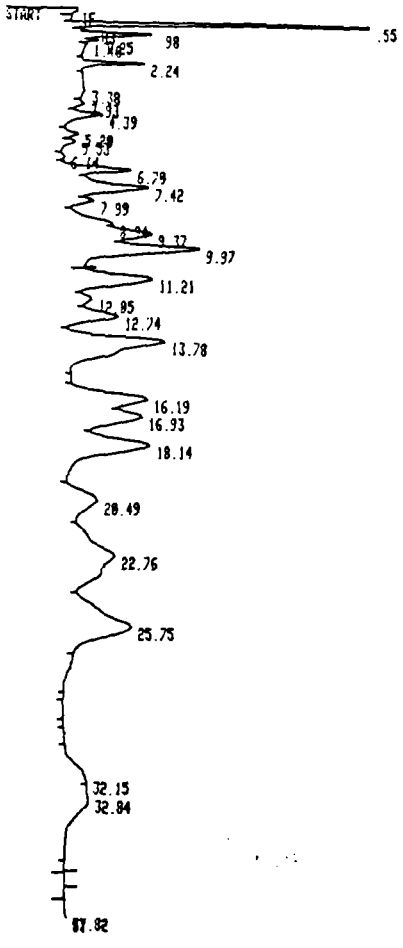


92904
med. PCB
BLANK
2nd
RL

22.02	55549	BB	0.616	0.598
24.99	578366	PB	0.995	6.229
32.11	356009	BB	1.776	3.834

TOTAL HGHT= 9286600
MUL FACTOR= 1.0000E+00

41766 2nd 35



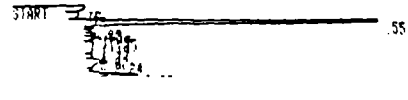
RUN # 500 SEP/05/87 10:51:29

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.55	2585124	SPB	0.087	47.331
0.83	11730	BB	0.046	0.215
0.98	191332	BB	0.149	3.503
1.25	32271	D BB	0.072	0.591
1.40	6966	D BB	0.125	0.129
2.24	185666	BB	0.130	3.399
3.38	13142	BB	0.630	0.241
3.93	20767	BB	0.183	0.380
4.39	92558	BB	0.230	1.695
5.20	32438	BB	0.183	0.594
5.53	26237	BB	0.178	0.480
6.14	8859	BB	0.167	0.162
6.70	164117	BB	0.226	3.005
7.42	192540	BB	0.337	3.525
7.99	45637	BB	0.214	0.836
9.37	104135	BB	0.319	1.907
9.97	269279	BB	0.318	4.930
11.21	209809	BB	0.481	3.841
12.05	28469	BB	0.300	0.521
12.74	127852	BB	0.403	2.341
13.78	289275	BB	0.712	5.296
16.19	135824	PB	0.444	2.487
16.93	101404	BB	0.478	1.857
18.14	197309	BB	0.596	3.613
20.49	78443	BB	0.807	1.436
22.76	115058	BB	1.419	2.106
25.75	168501	BB	1.108	3.085
32.84	22084	BB	0.352	0.404
37.82	4988	I BH	0.507	0.091

TOTAL HGHT= 5461800
MUL FACTOR= 1.0000E+00

41766 MS 1-10 2nd 35

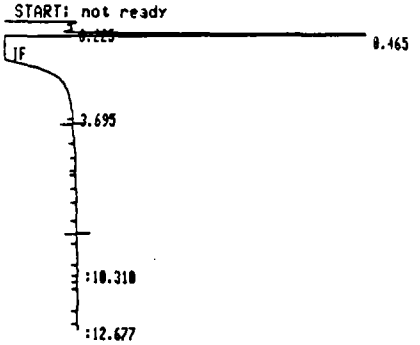


	5.583	14213	VV	
8.053	16544	VV	.444	5.75748
8.939	8883	VV	.597	3.09137
10.086	10801	VV	.629	3.75886
11.291	12283	VV	.645	4.27461
12.115	3071	VV	.769	1.06874
13.038	2237	VV	.768	.77850
14.272	3950	VV	.992	1.37464
15.860	3020	VV	1.084	1.05099
16.894	2809	VV	1.678	.97756
21.687	1653	VV	2.004	.57526

TOTAL HEIGHT= 287348
MUL FACTOR=1.0000E+00

41767 2nd JG

* RUN # 340 SEP 5, 1987 00:16:58
START: not ready



STOP

RUN# 340 SEP 5, 1987 00:16:58

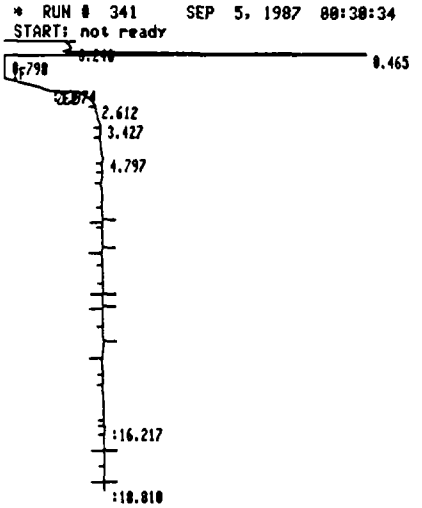
IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.225	2091	BV	.331	2.46991
.465	81565	VB	.063	96.34534
3.695	1003	PV	5.927	1.18475

TOTAL HEIGHT= 84659
MUL FACTOR=1.0000E+00

41768 2nd JG

* RUN # 341 SEP 5, 1987 00:30:34
START: not ready



STOP

RUN# 341 SEP 5, 1987 00:30:34

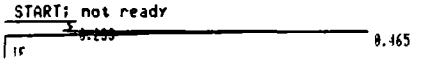
IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.240	2122	BV	.298	3.38750
.465	48247	VB	.064	77.02019
.798	798	BV	.090	1.27391
2.612	4643	VV	1.218	7.41196
3.427	4072	VV	.952	6.50043
4.797	2760	VV	1.172	4.40599

TOTAL HEIGHT= 62642
MUL FACTOR=1.0000E+00

41769 2nd JG

* RUN # 342 SEP 5, 1987 00:49:46
START: not ready



STOP

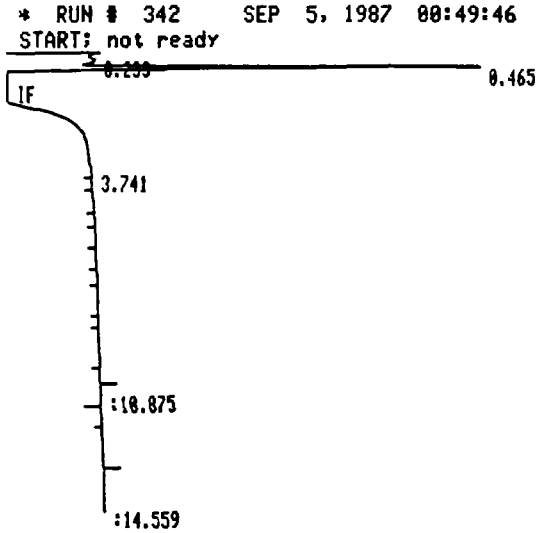
RUN# 341 SEP 5, 1987 00:30:34

IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.240	2122	BV	.298	3.38750
.465	48247	VB	.064	77.02019
.798	798	BV	.090	1.27391
2.612	4643	VV	1.218	7.41196
3.427	4072	VV	.952	6.50043
4.797	2760	VV	1.172	4.40599

TOTAL HEIGHT= 62642
MUL FACTOR=1.0000E+00 41769 2nd JG

* RUN # 342 SEP 5, 1987 00:49:46
START: not ready



STOP

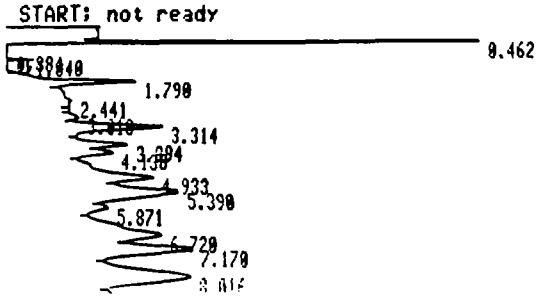
RUN# 342 SEP 5, 1987 00:49:46

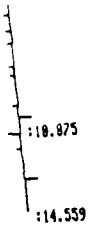
IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.233	2509	BV	.331	4.84298
.465	44496	VP	.069	85.88800
3.741	4802	PV	2.690	9.26902

TOTAL HEIGHT= 51807
MUL FACTOR=1.0000E+00 41770 1-10 1nd JG

* RUN # 343 SEP 5, 1987 01:04:43
START: not ready





STOP

RUN# 342 SEP 5, 1987 00:49:46

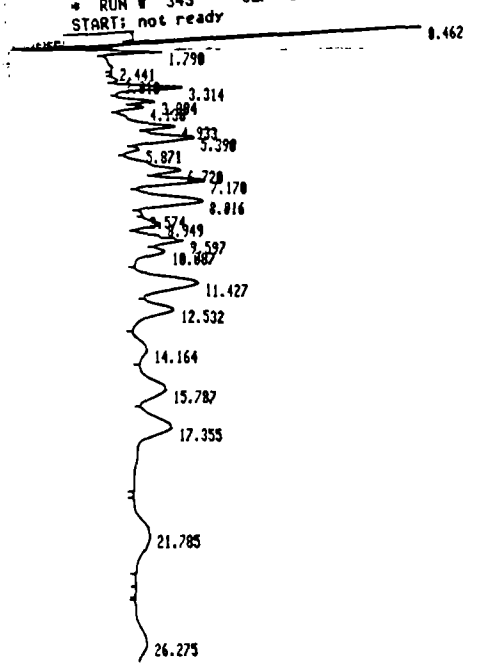
IDENTIFIER : DB-608 GC-H

HEIGHT% RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.233	2509	BV	.331	4.84298
.465	44496	VP	.069	85.88800
3.741	4802	PV	2.690	9.26902

TOTAL HEIGHT= 51807
MUL FACTOR=1.0000E+00

41770
1-10
1 d JG

* RUN # 343 SEP 5, 1987 01:04:43
START; not ready



STOP

RUN# 343 SEP 5, 1987 01:04:43

IDENTIFIER : DB-608 GC-H

HEIGHT% RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.462	40843	VB	.052	29.09357
.884	602	PV	.210	.42882
1.040	2463 I	VB	.063	1.75446
1.790	4116	BV	.181	2.93194
2.441	1788	VV	.584	1.27364
3.010	2031	VV	.266	1.44674
3.314	5043	VV	.301	3.59226
3.894	3752	VV	.292	2.67265
4.138	3219	VV	.272	2.29298
4.933	4674	VV	.498	3.32942
5.390	5597	VV	.466	3.98689
5.871	3049	VV	.326	2.17188
6.720	4976	VV	.612	3.54454
7.170	6090	VV	.424	4.33807
8.016	6001	VV	.633	4.27467
8.574	3228	VV	.267	2.29939
8.949	4051	VV	.514	2.88564
9.597	5074	VV	.507	3.61435
10.087	4238	VV	.717	3.01884
11.427	5787	VV	.954	4.12224
12.532	4656	VV	1.068	3.31659
14.164	3405	VV	1.240	2.42547
15.787	4277	VV	1.445	3.04662
17.355	4552	VV	2.490	3.24251
21.785	3509	VV	2.878	2.49956
26.275	3364 I	VH	2.361	2.39627

TOTAL HEIGHT= 140385
MUL FACTOR=1.0000E+00

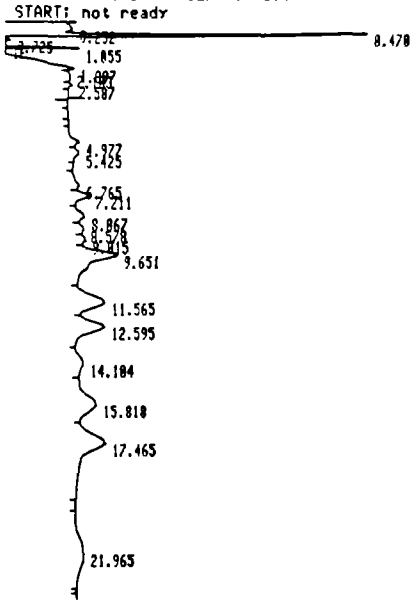
1016/1260
04/0.809
JG

* RUN # 344 SEP 5, 1987 01:32:52
START; not ready

13.530	2931	VV	.775	.69629
14.525	6822	VV	.795	1.62064
15.267	4582	VV	1.119	1.08850
16.985	11472	VV	.912	2.72529
21.755	6572	VV	1.506	1.56125
25.739	409	VV	1.930	.09716

TOTAL HEIGHT= 420946
MUL FACTOR=1.0000E+00 41771 2ul 35

* RUN # 345 SEP 5, 1987 02:03:27
START: not ready



STOP

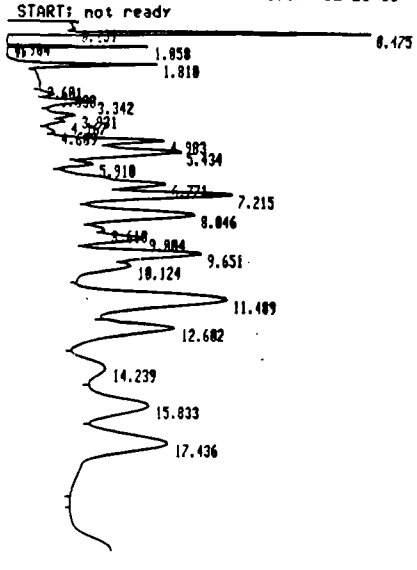
RUN# 345 SEP 5, 1987 02:03:27

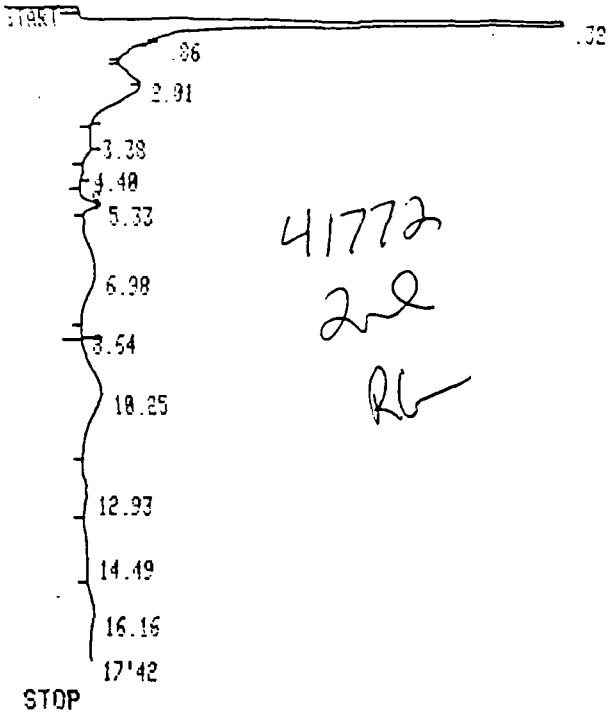
IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.252	2425	BV	.298	2.59461
.470	59085	VP	.067	63.21754
.725	3481	PV	.064	3.72447
1.855	5895	VV	.089	6.30731
1.897	3487	VV	.579	3.73089
2.103	2790	VV	.390	2.98514
2.587	1662	VV	.289	1.77824
4.977	507	VV	.325	.54246
5.425	509	VV	.447	.54460
6.765	499	VV	.538	.53390
7.211	962	VV	.385	1.02928
8.067	738	VV	.524	.78962
8.578	711	VV	.383	.76073
9.015	786	VV	.420	.84097
9.651	2289	VV	.736	2.44910
11.565	1712	VV	.745	1.83174
12.595	1677	VV	.695	1.79429
14.184	683	VV	.950	.73077
15.818	1252	VV	1.189	1.33957
17.465	1650	VV	1.320	1.76540
21.965	663	VV	2.286	.70937

TOTAL HEIGHT= 93463
MUL FACTOR=1.0000E+00 41774 2ul 35

* RUN # 346 SEP 5, 1987 02:28:35
START: not ready





41772
2nd
RL

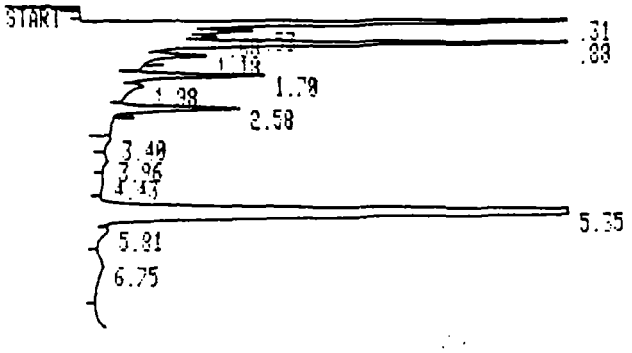
RUN # 158 SEP/05/87 13:47:20
ID -5

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.32	623413	SBB	0.238	92.036
0.86	2773	DTBB	0.085	0.409
2.01	14722	TYV	0.295	2.173
3.38	335	TPB	0.310	0.050
4.40	906	TBB	0.219	0.134
5.33	8860	BV	0.283	1.308
6.98	7191	VP	1.480	1.062
8.64	146	PB	0.154	0.022
10.25	9722	BP	1.349	1.435
12.93	2045	PV	0.695	0.302
14.49	2270	VV	1.121	0.335
16.16	4974	I VH	1.693	0.734

TOTAL HGHT= 677360
MUL FACTOR= 1.0000E+00

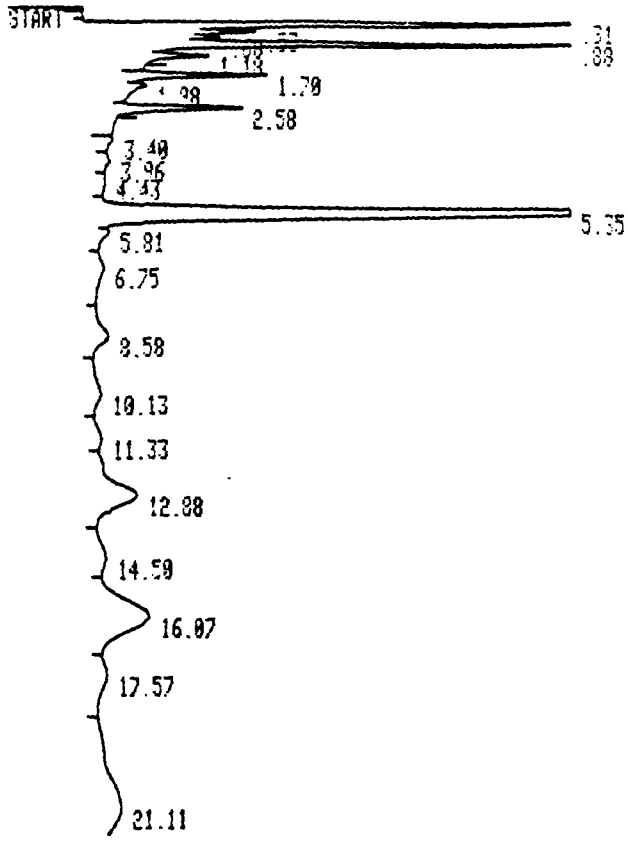
41773
2nd



14.49
16.16 4974 I VH 1.695

TOTAL HGHT= 677360
MUL FACTOR= 1.0000E+00

41773
2nd Jo



STOP

RUN # 159 SEP/05/87 14:06:07
ID -5

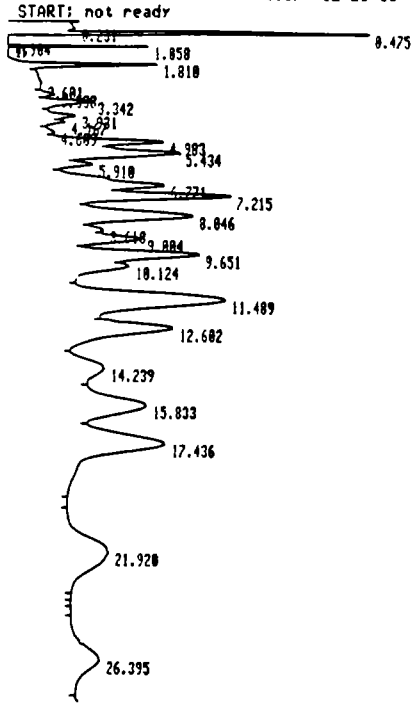
HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.31	284584	PY	0.129	22.536
0.53	74769	D YY	0.129	5.921
0.68	53951	D YY	0.111	4.272
0.88	236033	D YY	0.129	18.691
1.18	36668	D YB	0.141	2.904
1.70	62026	D BY	0.104	4.912
1.98	5988	D YP	0.170	0.474
2.58	58762	PB	0.127	4.653
3.40	1392	D BP	0.122	0.110
3.96	1873	PP	0.221	0.148
4.43	607	PY	0.361	0.048
5.35	360786	YY	0.233	28.570
5.81	4325	YP	0.269	0.343
6.75	3151	PP	0.546	0.250
8.58	7114	PP	0.555	0.563
10.88	[illegible]	PY	~~0.556~~	0.275
14.50	20403	YY	0.789	0.286
16.07	4952	YY	0.820	1.616
17.57	25597	YY	1.013	0.392
21.11	4970	YP	0.843	2.027
	7753	I PP	1.449	0.394
				0.614

8.067	738	VV	.524	.78962
8.579	711	VV	.383	.76073
9.015	786	VV	.420	.84097
9.651	2289	VV	.736	2.44910
11.565	1712	VV	.245	1.83174
12.595	1677	VV	.695	1.79429
14.104	683	VV	.950	.73077
15.818	1252	VV	1.189	1.33957
17.465	1650	VV	1.320	1.76540
21.965	663	VV	2.286	.70937

TOTAL HEIGHT= 93463
MUL FACTOR=1.0000E+00 41774 2nd JG

* RUN # 346 SEP 5, 1987 02:28:35
START; not ready



STOP

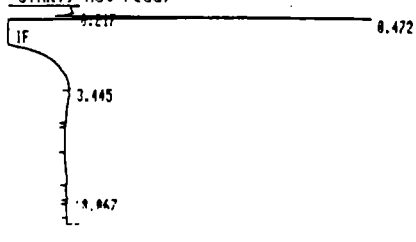
RUN# 346 SEP 5, 1987 02:28:35

IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.231	1909	BV	.324	.53085
.475	149474	VB	.060	41.56536
.904	436	PV	.059	.12124
1.858	9010	VV	.074	2.50548
1.810	9400	VV	.289	2.61393
2.601	4074	VV	.695	1.13289
3.038	4657	VV	.407	1.29501
3.342	6374	VV	.382	1.77247
3.931	5637	VV	.363	1.56752
4.167	5145	VV	.298	1.43071
4.609	4663	VV	.303	1.29668
4.983	9734	VV	.332	2.70681
5.434	10512	VV	.476	2.92315
5.910	6436	VV	.342	1.78971
6.771	9797	VV	.621	2.72432
7.215	12933	VV	.435	3.59638
8.046	11158	VV	.637	3.10279
8.618	6981	VV	.300	1.94126
9.004	8741	VV	.501	2.43068
9.651	11431	VV	.522	3.17870
10.124	8191	VV	.679	2.27773
11.489	12686	VV	.962	3.52769
12.602	10237	VV	1.033	2.84668
14.239	7020	VV	1.231	1.95210
15.833	9015	VV	1.398	2.50687
17.436	9878	VV	2.121	2.74685
21.920	7247	VV	3.001	2.01523
26.395	6836	VV	3.021	1.90094

TOTAL HEIGHT= 359612
MUL FACTOR=1.0000E+00 41777 2nd JG

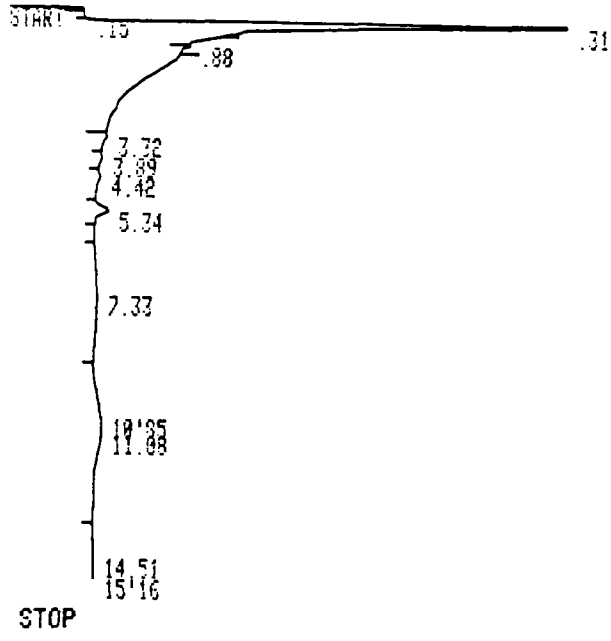
* RUN # 347 SEP 5, 1987 02:57:33
START; not ready



21.11	7753 I PP	1.449	0.614

TOTAL HGHT= 1262800
MUL FACTOR= 1.0000E+00

41775
2ul JG



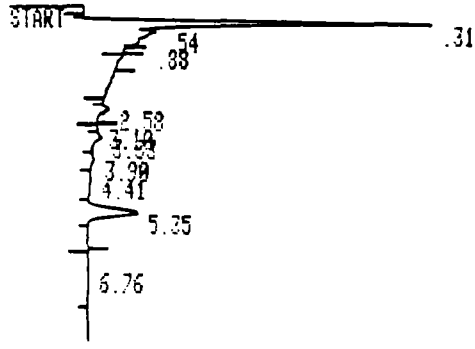
RUN # 160 SEP/05/87 14:29:05
ID -5

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.15	209	BP	0.119	0.067
0.31	294085	PB	0.130	94.556
0.88	1111 D	BB	0.000	0.357
3.32	815	BP	0.109	0.262
3.89	810	PP	0.177	0.260
4.42	1169	PP	0.214	0.376
5.34	6413	PP	0.236	2.062
7.33	1622	VP	1.936	0.522
11.08	4412	PP	1.679	1.419
14.51	370 I	PP	0.543	0.119

TOTAL HGHT= 311020
MUL FACTOR= 1.0000E+00

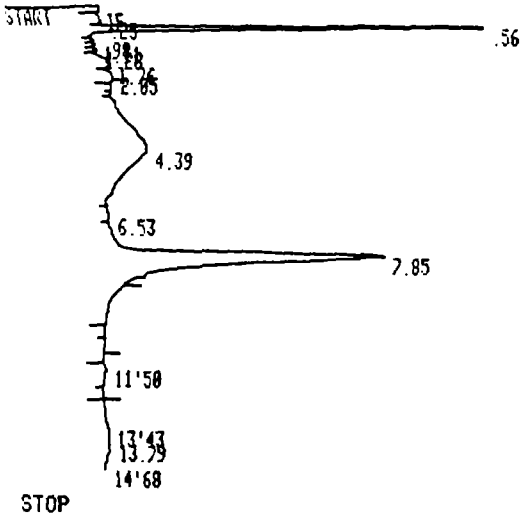
41778
2ul JG



16.24	132493	BB	0.407	0.574
16.97	226704	BB	0.498	0.982
18.19	386296	BB	0.622	1.674
20.46	120633	PB	0.778	0.523
22.88	193534	BB	1.514	0.839
25.84	334475	BB	1.171	1.449
29.21	2563	PB	0.170	0.011
33.11	102146 I	VH	1.939	0.443

TOTAL HGHT= 2.3081E+07
MUL FACTOR= 1.0000E+00

4/776 2nd JS



RUN # 506 SEP/05/87 14:30:56

HEIGHT%

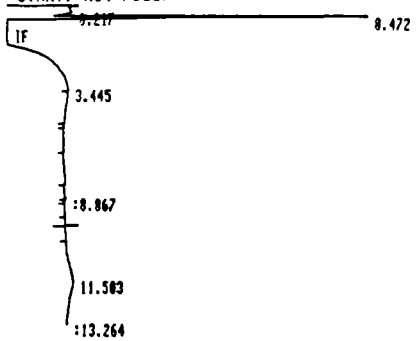
RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.25	8512	PB	0.249	0.442
0.56	1150849	SPB	0.092	59.814
0.98	5727	BB	0.077	0.298
1.11	5684 D	BB	0.072	0.295
1.28	11949 D	BB	0.082	0.621
1.76	17192	BB	0.444	0.894
2.05	8864	BB	0.183	0.461
4.39	90071	PB	1.632	4.681
6.53	3457	BB	0.247	0.180
7.85	607781	BB	0.396	31.588
13.79	13975 I	BH	1.247	0.726

13.530	2931	VV	.775	.69629
14.535	6922	VV	.705	1.62479
8.046	11158	VV	.637	3.18279
8.618	6981	VV	.300	1.94126
9.004	8741	VV	.501	2.43068
9.651	11431	VV	.522	3.17870
10.124	8191	VV	.679	2.27773
11.489	12686	VV	.962	3.52769
12.602	10237	VV	1.033	2.84668
14.239	7020	VV	1.231	1.95210
15.833	9015	VV	1.398	2.50687
17.436	9878	VV	2.121	2.74685
21.920	7247	VV	3.001	2.01523
26.395	6836	VV	3.021	1.90094

TOTAL HEIGHT= 359612
MUL FACTOR=1.0000E+00

4/177 2d 56

* RUN # 347 SEP 5, 1987 02:57:33
START: not ready



STOP

RUN# 347 SEP 5, 1987 02:57:33

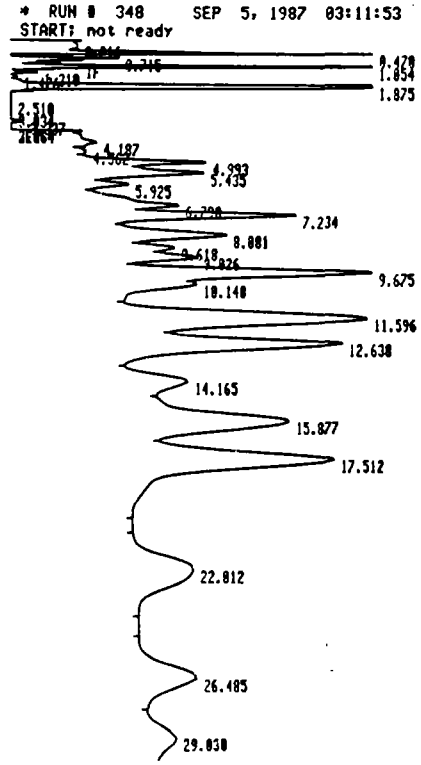
IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.217	2262	BV	.378	4.95911
.472	38059	VP	.072	83.43894
3.445	4929	PV	2.283	10.80613
11.503	363	I VH	1.677	.79583

TOTAL HEIGHT= 45613
MUL FACTOR=1.0000E+00

4/179 2d 56

* RUN # 348 SEP 5, 1987 03:11:53
START: not ready



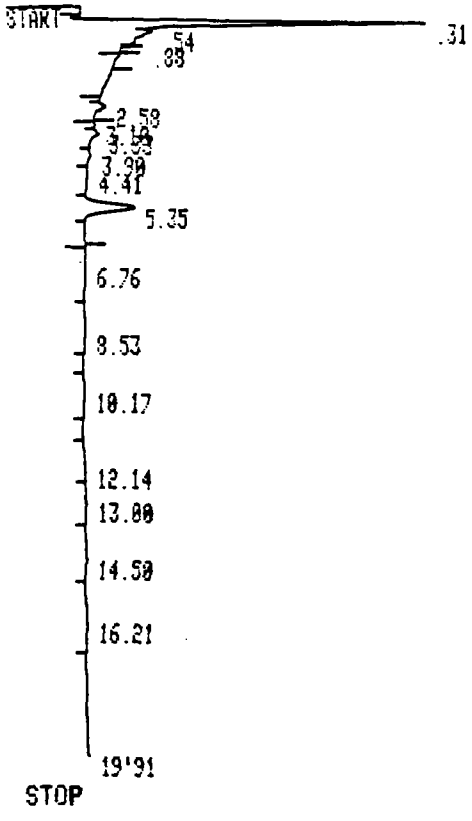
STOP

RUN# 348 SEP 5, 1987 03:11:53

0.88	1111	D	BB	0.000	0.257
3.32	815		BP	0.109	0.262
3.89	810		PP	0.177	0.260
4.42	1169		PP	0.214	0.376
5.34	6413		PP	0.236	2.062
7.33	1622		VP	1.936	0.522
11.08	4412		PP	1.679	1.419
14.51	370	I	PP	0.543	0.119

TOTAL HGHT= 311020
MUL FACTOR= 1.0000E+00

41778
2vl JG



RUN # 161 SEP/05/87 14:45:06
ID -5

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.31	167993	PY	0.124	67.162
0.54	28191	D YY	0.248	11.270
0.88	15440	D VB	0.129	6.173
2.58	3581	VB	0.121	1.432
3.10	908	BV	0.138	0.363
3.33	3066	VP	0.179	1.226
3.90	1058	PP	0.212	0.423
4.41	644	PP	0.312	0.258
5.35	23780	PY	0.233	9.507
6.76	617	BV	0.685	0.247
8.53	793	VP	0.725	0.317
10.17	762	VP	0.493	0.305
12.14	788	PV	0.592	0.315
13.00	1040	VP	0.713	0.416
14.50	642	PP	0.678	0.257
16.21	828	PP	0.849	0.331

:13.264

STOP

RUN# 347 SEP 5, 1987 02:57:33

IDENTIFIER : DB-608 GC-H

HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.217	2262	BV	.378	4.95911
.472	38059	VP	.072	83.43894
3.445	4929	PV	2.203	10.80613
11.503	363	I VH	1.677	.79583

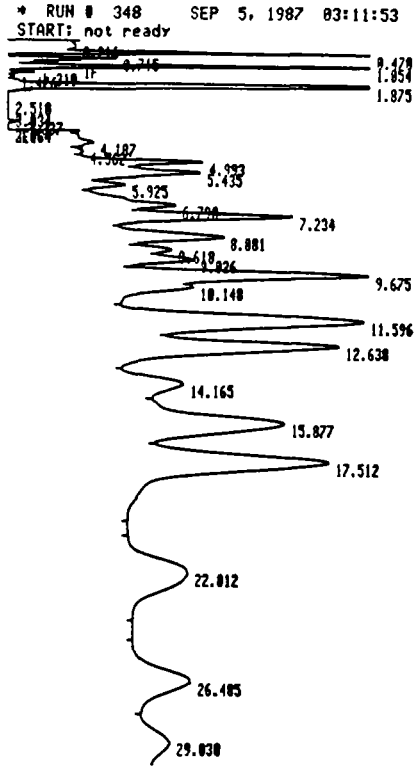
TOTAL HEIGHT= 45613

MUL FACTOR=1.0000E+00

41779 2-2-56

* RUN # 348 SEP 5, 1987 03:11:53

START: not ready



STOP

RUN# 348 SEP 5, 1987 03:11:53

IDENTIFIER : DB-608 GC-H

HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.216	2218	BV	.331	.63538
.470	95176	VP	.065	27.26450
.715	8359	PV	.170	2.39455
1.054	70694	VB	.064	20.25129
1.310	1112	PP	.065	.31855
1.476	208	PV	.074	.05958
1.875	29798	VB	.145	8.53605
2.510	293	BP	.163	.08393
3.034	279	PV	.218	.07992
3.337	1211	VV	.158	.34691
3.664	577	VV	.256	.16529
4.187	1196	VV	.318	.34261
4.562	726	VV	.261	.20797
4.993	6265	VV	.254	1.79470
5.435	6164	VV	.359	1.76576
5.925	2663	VV	.283	.76285
6.790	4991	VV	.472	1.42974
7.234	10503	VV	.363	3.00873
8.081	7198	VV	.501	2.05968
8.618	4790	VV	.353	1.37216
9.026	5788	VV	.403	1.65805
9.675	14070	VV	.450	4.03055
10.148	5776	VV	.537	1.65462
11.596	13826	VV	.751	3.96065
12.638	12619	VV	.714	3.61489
14.165	5248	VV	1.004	1.50336
15.877	9998	VV	1.192	2.86407
17.512	12100	VV	1.302	3.46621
22.812	5372	VV	2.417	1.53888
26.485	5426	VV	2.171	1.55435
29.030	4448	I VH	1.857	1.27419

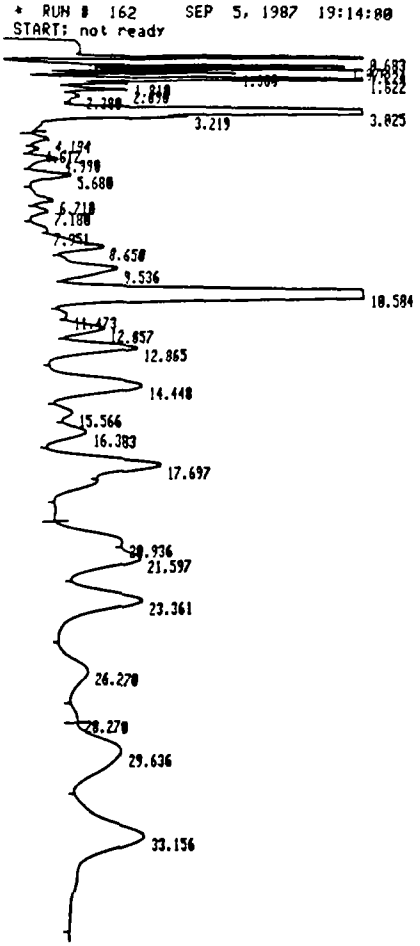
TOTAL HEIGHT= 349084

PEAK CAPACITY: 1284

ZERO = 15, 0.664
ATT 2^ = 1
CHT SP = 0.5
AP REJ = 0
THRSH = 1
PK WD = 0.08

41780 1-10 3ml RV

* RUN # 162 SEP 5, 1987 19:14:00
START: not ready



STOP

RUN# 162 SEP 5, 1987 19:14:00

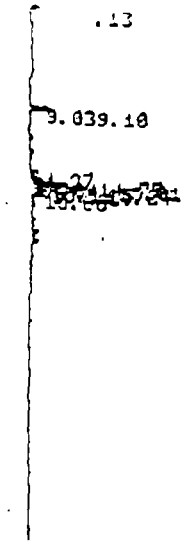
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.683	45406	VP	.084	16.66746
1.076	12959	PB	.069	4.75694
1.224	14115	BB	.058	5.18128
1.380	8826	BB	.066	3.23981
1.622	65467	BB	.076	24.03138
1.810	2132	BB	.076	.78261
2.090	2762	BB	.104	1.01386
2.380	489	BB	.189	.17950
3.025	48540	PB	.151	17.81788
4.194	815	BB	.219	.29917
4.612	400	BB	.150	.14683
4.990	1375	BB	.243	.50473
5.680	1971	BB	.282	.72351
6.710	951	BB	.263	.34909
7.180	734	BB	.255	.26943
7.951	161	BB	.145	.05910
8.650	2305	BB	.382	.84611
9.536	2718	BB	.483	.99771
10.584	31475	BB	.397	11.55372
11.473	250	BB	.233	.09177
12.057	1832	BB	.406	.67248
12.865	3726	BB	.443	1.36773
14.448	4250	BB	.700	1.56007
15.566	662	BB	.394	.24300
16.383	1474	BB	.501	.54107
17.697	4060	BB	.553	1.49033
20.936	574	PB	.543	.21070
21.597	1734	BB	.601	.63651
23.361	3557	BB	.841	1.30569
26.270	1127	BB	1.069	.41369
28.270	71	BB	.592	.02606
29.636	2140	BB	1.440	.78554
33.156	3365	BB	1.439	1.23521

TOTAL HEIGHT= 272423
MUL FACTOR=1.0000E+00

*

CHANNEL A INJECT 09/09/87 14:09:53



BLK (Hall)

90909

09/09/87 14:09:53 CH= "A" PS= 1.

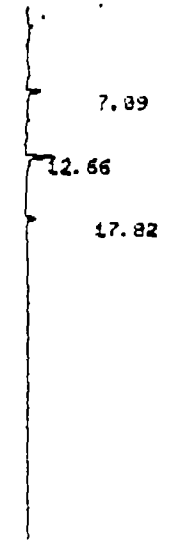
FILE 1. METHOD 0. RUN *** INDEX ***

PEAK#	AREA%	RT	AREA BC
1	8.375	0.13	3049 01
2	34.091	9.03	12412 02
3	3.016	9.1	1098 03
4	3.137	14.75	1142 02
5	3.444	14.34	1254 03
6	26.674	15.01	9711 02
7	10.419	15.13	3793 03
8	4.714	15.24	1716 01
9	6.129	15.66	2231 01
TOTAL	100.		36406

HITCH (.4mg)
dilution < .1 hole
100%
308186

~~305-2215~~
2 S WS
017
2532 - 41731

CHANNEL A INJECT 09/09/87 15:05:53



09/09/87 15:05:53 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN *** INDEX ***

PEAK#	AREA%	RT	AREA BC
1	27.339	7.09	9723 01
2	56.553	12.66	20113 01
3	16.109	17.82	5729 01
TOTAL	100.		35565

CHANNEL A INJECT 09/09/87 14:08:40

BLK (PED

90909

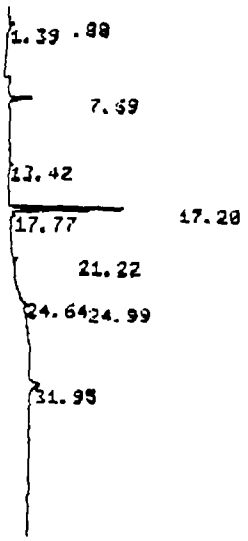
09/09/87 14:08:40 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN *** INDEX ***

PEAK#	AREA%	RT	AREA BC
1	100.	31.9	22910 01
TOTAL	100.		22910

2532 - 41731
~~3052~~ - ~~22152~~
TAC 5 mo

CHANNEL A INJECT 09/09/87 15:04:40



09/09/87 15:04:40 CH= "A" PS= 1.

FILE 1. METHOD 0. RUN *** INDEX ***

PEAK#	AREA%	RT	AREA BC
1	2.250	0.99	3352 02
2	4.515	1.39	6783 03
3	11.234	7.59	16680 01
4	1.241	13.42	1843 01
5	57.79	17.2	85803 01
6	1.805	17.77	2680 01
7	2.47	21.22	3667 01
8	3.822	24.99	5675 03
9	14.869	31.95	22071 01

016

IMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

NO. 523 PROJECT NAME: Greiners Lagoon

RS: (Signature) [illegible]

Chain #2

REMARKS: MAECORP PO # 22887-01523

DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCBs-1ppm detection						
8/30	1540		X	Lagoon 4 S 400, W 305	1-8oz	X						
8/30	1545		X	Lagoon 4 S 300, W 305	1-8oz	X						
8/30	1550		X	Lagoon 4 S 200, W 305	1-8oz	X						
8/30	1600		X	Lagoon 4 S 100, W 305	1-8oz	X						
8/30	1605		X	Lagoon 4 S 0, W 305	1-8oz	X						
	Cancelled											
	cancelled											
8/30	1610		X	Lagoon 4 Random	1-8oz	X						
8/30	1620		X	Lagoon 4 Random	1-8oz	X						
9/30	1613		X	East Ditch 0'	1-8oz	X						9/30
9/30	1620		X	E. Ditch 100'	1-8oz	X						9/30
9/30	1628		X	E. Ditch 200'	1-8oz	X						9/3
9/30	1633		X	E. Ditch 300'	1-8oz	X						9/3
9/30	1640		X	E. Ditch 400'	1-8oz	X						9/3
9/30	1640		X	E. Ditch ~400' oily sludge	1-8oz	X						9/3

d by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]					

d by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

d by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[illegible]	9/3/87 5:15 pm	Bill to MAECORP INC 17450 S. Halsted Homewood, Il. 60430

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

Chain #3

PROJ. NO.: OH523
PROJECT NAME: Greiners Lagoon
SAMPLERS: (Signature) Elise E Allen

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCBs - 1ppm detection						REMARKS MACORP PO# 22B87-OH523
S-31	9/2	1645		X	Lagoon 3 35' w. baseline	1-8oz	X						
S-32	9/2	1649		X	Lagoon 3 S. berm 130' w	1-8oz	X						
S-33	9/2	1654		X	Dup S-32	1-8oz	X						
S-34	9/2	1657		X	Lagoon 3 S. berm 230' w	1-8oz	X						
S-35	9/2	1700		X	Lagoon 3 S. berm 305' w	1-8oz	X						
S-36	9/2	1705		X	Lagoon 4 Random	1-8oz	X						
S-37	9/3	1055		X	W Border 100' S	1-8oz	X						
S-38	9/3	1050		X	W Border 200' S	1-8oz	X						
S-39	9/3	1047		X	W Border 300' S	1-8oz	X						
S-40	9/3	1042		X	W Border 400' S	1-8oz	X						
S-41	9/3	1055		X	W Border 100' S 25' E	1-8oz	X						
S-42	9/3	1050		X	W Border 200' S 25' E	1-8oz	X						
S-43	9/3	1047		X	W Border 300' S 25' E	1-8oz	X						
S-44	9/3	1042		X	W Border 400' S 25' E	1-8oz	X						
S-45	9/3	1106		X	N ditch 0'	1-8oz	X						

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise E Allen					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time		Remarks
		Alexia Dorfard	9/3/87	5:15 PM	Bill to MACORP INC 17450 S. Halsted Homewood, IL 60430

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

Chain #4

PROJ. NO.: 01523

PROJECT NAME: Greiners Lagoon

SAMPLERS: (Signature) Elise E Allen

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCBs-1ppm detection						REMARKS
S-46	9/3	1116		X	N. Ditch 200'	1-8oz	X						MAECORP PO# 22887-01523
S-47	9/3	1116		X	N. Ditch 250'	1-8oz	X						
S-48	9/3	1110		X	N. Ditch 100'	1-8oz	X						
S-49	9/3	1123		X	N. Ditch 250' End	1-8oz	X						
S-50	9/3	1150		X	SE end of Tank Area	1-8oz	X						
S-51	9/3	1155		X	NE end of Tank Area	1-8oz	X						

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise E Allen					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Bill to:	
		Alexia Dunford	9/3/07 5:15 PM	MAECORP 17450 S. Halsted Homewood, IL 60430	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: DH523
PROJECT NAME: Greiners Lagoon
SAMPLERS: (Signature) Elise E Allen

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCBs, ORG, TTL Phenols	VOAs (601/602)	NH_3	HSL metals	TSS, TDS, MBAS	pH, DO	REMARKS MAECORP PO# 22907-OH523
W-1	9/3	1150		X	After C-1	4-1 liter	X						
W-1	9/3	1150		X	"	4-40ml		X					Bill Results + QA/QC to:
W-1	9/3	1150		X	"	1-1 liter			X				AREDDIE WALKER
W-1	9/3	1150		X	"	1-poly				X			MAECORP INC
W-1	9/3	1150		X	"	1-poly 2-16oz					X	X	17450 S. Halsted
													Homewood, IL 60430
													Results to:
													Deane Beile
													c/o Holiday INN FREMONT
													3422 N. STATE Rte 53
													Fremont, OHIO 43420
													VERBALS TO:
													ELISE ALLEN 1-526-2484

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise E Allen					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Alexia Dorsford	9/3/87 5:15 PM	Bill to: MAECORP INC 17450 S. Halsted Homewood, IL 60430	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ NO.: OH-523
PROJECT NAME: Greiners Lagoon
SAMPLERS: (Signature) Elise Allen

Chain #1

REMARKS: MAECORP PO # 22887-OH523

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCBs-1ppm detection						REMARKS
S-01	8/30	1604		X	Lagoon 4 S400, W30	1-8oz	X						RESULTS + QA/QC to:
S-02	8/30	1607		X	Lagoon 4 S300, W30	1-8oz	X						FREDDIE WALKER
S-03	8/30	1610		X	Lagoon 4 S200, W30	1-8oz	X						c/o MAECORP
S-04	8/30	1614		X	Lagoon 4 S100, W30	1-8oz	X						17450 S. HALSTED
S-05	8/30	1617		X	Lagoon 4 S0, W30	1-8oz	X						HOMEWOOD, IL 60430
S-06	8/30	1540		X	Lagoon 4 S400, W130	1-8oz	X						
S-07	8/30	1545		X	Lagoon 4 S300, W130	1-8oz	X						RESULTS TO:
S-08	8/30	1600		X	Lagoon 4 S200, W130	1-8oz	X						DEANNE GEICE
S-09	8/30	1605		X	Lagoon 4 S100, W130	1-8oz	X						c/o HOLIDAY INN FREMONT
S-10	8/30	1608		X	Lagoon 4 S0, W130	1-8oz	X						3422 N. STATE Rte. 53
S-11	8/30	1550		X	Lagoon 4 S400, W230	1-8oz	X						FREMONT, OH 43420
S-12	8/30	1555		X	Lagoon 4 S300, W230	1-8oz	X						
S-13	8/30	1600		X	Lagoon 4 S200, W230	1-8oz	X						VERBALS TO:
S-14	8/30	1605		X	Lagoon 4 S100, W230	1-8oz	X						Elise Allen 1-526-2484
S-15	8/30	1610		X	Lagoon 4 S0, W230	1-8oz	X						

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise E Allen					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Alexis Dunford	Date / Time 9/18/87 5:15 PM	Remarks Bill to: MAECORP 17450 S. HALSTED Homewood, IL 60430	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

ANALYTICAL SERVICES

GULF COAST LABORATORIES, INC.

2417 BOND ST., UNIVERSITY PARK, IL 60466 • (312) 534-5200

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-753

November 4, 1987

Mr. Fred Walker
MAECORP, Incorporated
17450 South Halsted Street
Homewood, IL. 60430

Dear Mr. Walker:

Enclosed please find the analytical reports for samples which were submitted to our laboratory for analyses. They were identified with our GCL#'s 116019 - 116034.

If you have any questions please contact our laboratories.

Sincerely,

Weston-Gulf Coast Laboratories

John Boudreau

John Boudreau
Analytical Director

JPB/dmp
Encl. Reports

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-91 - Soil
Sample Date: 10/21/87
Date Received: 10/28/87
GCL Number: 116019

GCL #	PARAMETERS	ANALYST		RESULTS		
116019	Aroclor 1016	bjw	<	10	mg/kg	dl
116019	Aroclor 1221	bjw	<	10	mg/kg	dl
116019	Aroclor 1232	bjw	<	10	mg/kg	dl
116019	Aroclor 1242	bjw	<	10	mg/kg	dl
116019	Aroclor 1248	bjw	<	10	mg/kg	dl
116019	Aroclor 1254	bjw	<	10	mg/kg	dl
116019	Aroclor 1260	bjw	<	10	mg/kg	dl
116019	PCBs, Total	bjw	<	10	mg/kg	dl
116019	Solids, Total	km		68.8	%	
116019	}Peaks present, don't appear to be PCBs		P			
116019	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-92 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116020

GCL #	PARAMETERS	ANALYST		RESULTS		
116020	Aroclor 1016	bjw	<	1	mg/kg	d
116020	Aroclor 1221	bjw	<	1	mg/kg	d
116020	Aroclor 1232	bjw	<	1	mg/kg	d
116020	Aroclor 1242	bjw	<	1	mg/kg	d
116020	Aroclor 1248	bjw	<	1	mg/kg	d
116020	Aroclor 1254	bjw	<	1	mg/kg	d
116020	Aroclor 1260	bjw	<	1	mg/kg	d
116020	PCBs, Total	bjw	<	1	mg/kg	d
116020	Solids, Total	km		78.5	%	
116020	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-93 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116021

GCL #	PARAMETERS	ANALYST		RESULTS		
116021	Aroclor 1016	bjw	<	1	mg/kg	dl
116021	Aroclor 1221	bjw	<	1	mg/kg	dl
116021	Aroclor 1232	bjw	<	1	mg/kg	dl
116021	Aroclor 1242	bjw	<	1	mg/kg	dl
116021	Aroclor 1248	bjw	<	1	mg/kg	dl
116021	Aroclor 1254	bjw	<	1	mg/kg	dl
116021	Aroclor 1260	bjw	<	1	mg/kg	dl
116021	PCBs, Total	bjw	<	1	mg/kg	dl
116021	Solids, Total	km		77.0	%	
116021	}Peaks present, don't appear to be PCBs		P			
116021	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-94 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116022

GCL #	PARAMETERS	ANALYST		RESULTS		
116022	Aroclor 1016	bjw	<	1	mg/kg	d
116022	Aroclor 1221	bjw	<	1	mg/kg	d
116022	Aroclor 1232	bjw	<	1	mg/kg	d
116022	Aroclor 1242	bjw	<	1	mg/kg	d
116022	Aroclor 1248	bjw	<	1	mg/kg	d
116022	Aroclor 1254	bjw	<	1	mg/kg	d
116022	Aroclor 1260	bjw	<	1	mg/kg	d
116022	PCBs, Total	bjw	<	1	mg/kg	d
116022	Solids, Total	km		85.7	%	
116022	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-95 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116023

GCL #	PARAMETERS	ANALYST		RESULTS		
116023	Aroclor 1016	bjw	<	1	mg/kg	d
116023	Aroclor 1221	bjw	<	1	mg/kg	d
116023	Aroclor 1232	bjw	<	1	mg/kg	d
116023	Aroclor 1242	bjw	<	1	mg/kg	d
116023	Aroclor 1248	bjw	<	1	mg/kg	d
116023	Aroclor 1254	bjw	<	1	mg/kg	d
116023	Aroclor 1260	bjw	<	1	mg/kg	d
116023	PCBs, Total	bjw	<	1	mg/kg	d
116023	Solids, Total	km		79.7	%	
116023	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-96 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116024

GCL #	PARAMETERS	ANALYST		RESULTS		
116024	Aroclor 1016	bjw	<	1	mg/kg	W
116024	Aroclor 1221	bjw	<	1	mg/kg	W
116024	Aroclor 1232	bjw	<	1	mg/kg	W
116024	Aroclor 1242	bjw	<	1	mg/kg	W
116024	Aroclor 1248	bjw	<	1	mg/kg	W
116024	Aroclor 1254	bjw		20	mg/kg	W
116024	Aroclor 1260	bjw	<	1	mg/kg	W
116024	PCBs, Total	bjw		20	mg/kg	W
116024	Solids, Total	km		14.8	%	
116024	}Result reported on an "as is basis"		W			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-97 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116025

GCL #	PARAMETERS	ANALYST		RESULTS		
116025	Aroclor 1016	bjw	<	1	mg/kg	WP
116025	Aroclor 1221	bjw	<	1	mg/kg	WP
116025	Aroclor 1232	bjw	<	1	mg/kg	WP
116025	Aroclor 1242	bjw	<	1	mg/kg	WP
116025	Aroclor 1248	bjw	<	1	mg/kg	WP
116025	Aroclor 1254	bjw	<	1	mg/kg	WP
116025	Aroclor 1260	bjw	<	1	mg/kg	WP
116025	PCBs, Total	bjw	<	1	mg/kg	WP
116025	Solids, Total	km		79.0	%	
116025	}Peaks present, don't appear to be PCBs		P			
116025	}Result reported on an "as is basis"		W			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-98 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116026

GCL #	PARAMETERS	ANALYST		RESULTS		
116026	Aroclor 1016	bjw	<	1	mg/kg	W
116026	Aroclor 1221	bjw	<	1	mg/kg	W
116026	Aroclor 1232	bjw	<	1	mg/kg	W
116026	Aroclor 1242	bjw	<	1	mg/kg	W
116026	Aroclor 1248	bjw	<	1	mg/kg	W
116026	Aroclor 1254	bjw		13	mg/kg	W
116026	Aroclor 1260	bjw	<	1	mg/kg	W
116026	PCBs, Total	bjw		13	mg/kg	W
116026	Solids, Total	km		80.3	%	
116026	}Result reported on an "as is basis"		W			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-99 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116027

GCL #	PARAMETERS	ANALYST		RESULTS		
116027	Aroclor 1016	bjw	<	1	mg/kg	W
116027	Aroclor 1221	bjw	<	1	mg/kg	W
116027	Aroclor 1232	bjw	<	1	mg/kg	W
116027	Aroclor 1242	bjw	<	1	mg/kg	W
116027	Aroclor 1248	bjw	<	1	mg/kg	W
116027	Aroclor 1254	bjw		17	mg/kg	W
116027	Aroclor 1260	bjw	<	1	mg/kg	W
116027	PCBs, Total	bjw		17	mg/kg	W
116027	Solids, Total	km		79.5	%	
116027	}Result reported on an "as is basis"		W			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-99a - Soil
Sample Date: 10/25/87
Date Received: 10/28/87
GCL Number: 116028

GCL #	PARAMETERS	ANALYST		RESULTS		
116028	Aroclor 1016	bjw	<	1	mg/kg	W
116028	Aroclor 1221	bjw	<	1	mg/kg	W
116028	Aroclor 1232	bjw	<	1	mg/kg	W
116028	Aroclor 1242	bjw	<	1	mg/kg	W
116028	Aroclor 1248	bjw	<	1	mg/kg	W
116028	Aroclor 1254	bjw		16	mg/kg	W
116028	Aroclor 1260	bjw	<	1	mg/kg	W
116028	PCBs, Total	bjw		16	mg/kg	W
116028	Solids, Total	km		81.8	%	
116028	}Result reported on an "as is basis"		W			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/05/87

RE: #OH523 Greiners Lagoon
S-100 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116029

GCL #	PARAMETERS	ANALYST	RESULTS			
116029	Aroclor 1016	bjw	<	20	mg/kg	dF
116029	Aroclor 1221	bjw	<	20	mg/kg	dF
116029	Aroclor 1232	bjw	<	20	mg/kg	dF
116029	Aroclor 1242	bjw	<	20	mg/kg	dF
116029	Aroclor 1248	bjw	<	20	mg/kg	dF
116029	Aroclor 1254	bjw	<	20	mg/kg	dF
116029	Aroclor 1260	bjw	<	20	mg/kg	dF
116029	PCBs, Total	bjw	<	20	mg/kg	dF
116029	Solids, Total	km		79.0	%	
116029	}Peaks present, don't appear to be PCBs		P			
116029	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-101 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116030

GCL #	PARAMETERS	ANALYST		RESULTS		
116030	Aroclor 1016	bjw	<	1	mg/kg	d
116030	Aroclor 1221	bjw	<	1	mg/kg	d
116030	Aroclor 1232	bjw	<	1	mg/kg	d
116030	Aroclor 1242	bjw	<	1	mg/kg	d
116030	Aroclor 1248	bjw	<	1	mg/kg	d
116030	Aroclor 1254	bjw	<	1	mg/kg	d
116030	Aroclor 1260	bjw	<	1	mg/kg	d
116030	PCBs, Total	bjw	<	1	mg/kg	d
116030	Solids, Total	km		67.1	%	
116030	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-102 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116031

GCL #	PARAMETERS	ANALYST		RESULTS		
116031	Aroclor 1016	bjw	<	1	mg/kg	d
116031	Aroclor 1221	bjw	<	1	mg/kg	d
116031	Aroclor 1232	bjw	<	1	mg/kg	d
116031	Aroclor 1242	bjw	<	1	mg/kg	d
116031	Aroclor 1248	bjw	<	1	mg/kg	d
116031	Aroclor 1254	bjw	<	1	mg/kg	d
116031	Aroclor 1260	bjw	<	1	mg/kg	d
116031	PCBs, Total	bjw	<	1	mg/kg	d
116031	Solids, Total	km		83.2	%	
116031	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/05/87

RE: #OH523 Greiners Lagoon
S-103 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116032

GCL #	PARAMETERS	ANALYST		RESULTS		
116032	Aroclor 1016	bjw	<	1	mg/kg	d
116032	Aroclor 1221	bjw	<	1	mg/kg	d
116032	Aroclor 1232	bjw	<	1	mg/kg	d
116032	Aroclor 1242	bjw	<	1	mg/kg	d
116032	Aroclor 1248	bjw	<	1	mg/kg	d
116032	Aroclor 1254	bjw	<	1	mg/kg	d
116032	Aroclor 1260	bjw	<	1	mg/kg	d
116032	PCBs, Total	bjw	<	1	mg/kg	d
116032	Solids, Total	km		86.6	%	
116032	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-104 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116033

GCL #	PARAMETERS	ANALYST		RESULTS		
116033	Aroclor 1016	bjw	<	1	mg/kg	d
116033	Aroclor 1221	bjw	<	1	mg/kg	d
116033	Aroclor 1232	bjw	<	1	mg/kg	d
116033	Aroclor 1242	bjw	<	1	mg/kg	d
116033	Aroclor 1248	bjw	<	1	mg/kg	d
116033	Aroclor 1254	bjw	<	1	mg/kg	d
116033	Aroclor 1260	bjw	<	1	mg/kg	d
116033	PCBs, Total	bjw	<	1	mg/kg	d
116033	Solids, Total	km		73.8	%	
116033	}Result is on a dry weight basis		d			

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: MAECORP, Incorporated
17450 South Halsted Street
Homewood IL 60430

ATTN: Mr. Fred Walker

DATE: 11/04/87

RE: #OH523 Greiners Lagoon
S-105 - Soil
Sample Date: 10/26/87
Date Received: 10/28/87
GCL Number: 116034

GCL #	PARAMETERS	ANALYST		RESULTS		
116034	Aroclor 1016	bjw	<	1	mg/kg	d
116034	Aroclor 1221	bjw	<	1	mg/kg	d
116034	Aroclor 1232	bjw	<	1	mg/kg	d
116034	Aroclor 1242	bjw	<	1	mg/kg	d
116034	Aroclor 1248	bjw	<	1	mg/kg	d
116034	Aroclor 1254	bjw	<	1	mg/kg	d
116034	Aroclor 1260	bjw	<	1	mg/kg	d
116034	PCBs, Total	bjw	<	1	mg/kg	d
116034	Solids, Total	km		85.2	%	
116034	}Result is on a dry weight basis		d			

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

116019-34

CHAIN OF CUSTODY RECORD

Chain

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

PROJ. NO.: OH523
PROJECT NAME: Greiners Lagoon
SAMPLERS: (Signature) Elise E Allen

MAECORP PO# 23605-OH523

STA. NO.	1987 DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCB - 1ppm	REMARKS
S-101	10/26	1450	X		Lagoon 4, trench on hole 1	1-8oz	X	Custody Seal # 38732
S-102	10/26	1510	X		" , trench on hole 3	1-8oz	X	38733
S-103	10/26	1520	X		", trench w of S-14	1-8oz	X	
S-104	10/26	1440	X		", trench on hole 6	1-8oz	X	
S-105	10/26	1725	X		", at S-5	1-8oz	X	

Verbals to:
Ed Burk or ELISE E Allen
419/992-4218

HARD COPY + QA/QC to:
① Carl Emlund c/o MAECORP
213 County Rd 181
Fremont, OH 43420

② Freddie Walker
17450 S. Halsted
Homewood, IL 60430

[redacted]

Shipped to Gulf Coast Lab

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Elise E Allen	10/27/87 1330	Paul [illegible] Seal # 34771 34770			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Bill to: MAECORP, INC 17450 S. Halsted Homewood, IL 60430	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

GCL QA/QC DATA REPORT

Units of Measure: Soil mg/kg d

Parameter	PEB	Spike Dupl.					DBC
Method Blank	<1 mg/kg d	<1 mg/kg d					101%
PRECISION							
GCL JOB # Duplicate	116020						95%
Original Result	<1 mg/kg d						
Duplicate Result	<1 mg/kg d						
R/RPD	0/0						
ACCURACY							
JOB # Spiked	116020	116020					101%
Original Result	<1 mg/kg d	<1 mg/kg d					107%
Amount Spiked	501 mg/kg	501 mg/kg	R/RPD 27/3.67				
Spiked S. Result	508 mg/kg	527 mg/kg					
% Recovery	101%	105%					
Spiked Blank (Known)	501 mg/kg						
Spiked Blank Result	508 mg/kg						
% Recovery	101%						
GCL BATCH JOB #'s Mae Corp	116019						101%
	116020						99%
	116021						107%
	116022						114%
	116023						100%
	116029						114%
	116030						107%
	116031						103%
	116032,	116033, 116034					78%/108%/111%
Correlation Coefficient							
External Referance QC							
Known Value							
Observed Result							
% Recovery							
Analyst	BJ Witt						
Date	11-13-87						
Comments							

GCL QA/QC DATA REPORT

Units of Measure: mg/kg w (o/l)

Parameter	PCB	spike Dup					OBC
Method Blank	<1 mg/kg w	<1 mg/kg w					73%
PRECISION							
GCL JOB # Duplicate							
Original Result							
Duplicate Result							
R/RPD							
ACCURACY							
JOB # Spiked	116020	116020					
Original Result	<1 mg/kg d	<1 mg/kg d	R/RPD 14/2.9%				
Amount Spiked	50.1 ug/ml	50.1 ug/ml					
Spiked S. Result	42.1 ug/ml	40.9 ug/ml					
% Recovery	84%	82%					
Spiked Blank (Known)	50.1 ug/ml						84%
Spiked Blank Result	46 ug/ml						
% Recovery	92%						
GCL BATCH JOB #'s MacCorp	116024						
	116025						florisil clean-up
	116026						
	116027						
	116028						
Correlation Coefficient							
External Referance QC							
Known Value							
Observed Result							
% Recovery							
Analyst	BJ Wall						
Date	12-3-87						
Comments	o/l						

EVALUATION CHECK FOR LINEARITY

Lab: WESTON-GULF COAST Instr. ID: ECD-L2

Client: MacCorp Col. ID: SP2250/SP2401

Dates of analysis: 10-2, 3-87

AR-1242	CAL FACT	AR-1248	CAL FACT	AR-1254	CAL FACT
20%	844	20%	872	20%	722
50%	847	50%	835	50%	656
100%	888	100%	840	100%	636
% RSD	2.86		2.41		6.70

CONTINUING CALIBRATION SUMMARY

Sample	Date Anal	Time Anal	Ht	Date Anal	Time Anal	Ht	%D
1242-50	11-2-87		271	42-50	11-3-87	292	7.75
48-50	11-2-87		401	48-50	11-3-87	450	12.2
54-50	11-2-87		525				1
				42-50	11-3-87	305	12.5
				48-50	11-3-87	441	9.98
				54-50	11-3-87	550	4.76

GCL # Aroclor 1242. Analyst: Bjw

Chrom # 1 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:: 128 :column: SP2250 / SP2401

Sample ID Aroclor 1242 0.100 ng/ul

Detector ECD-L2 Instrument Varian 3700

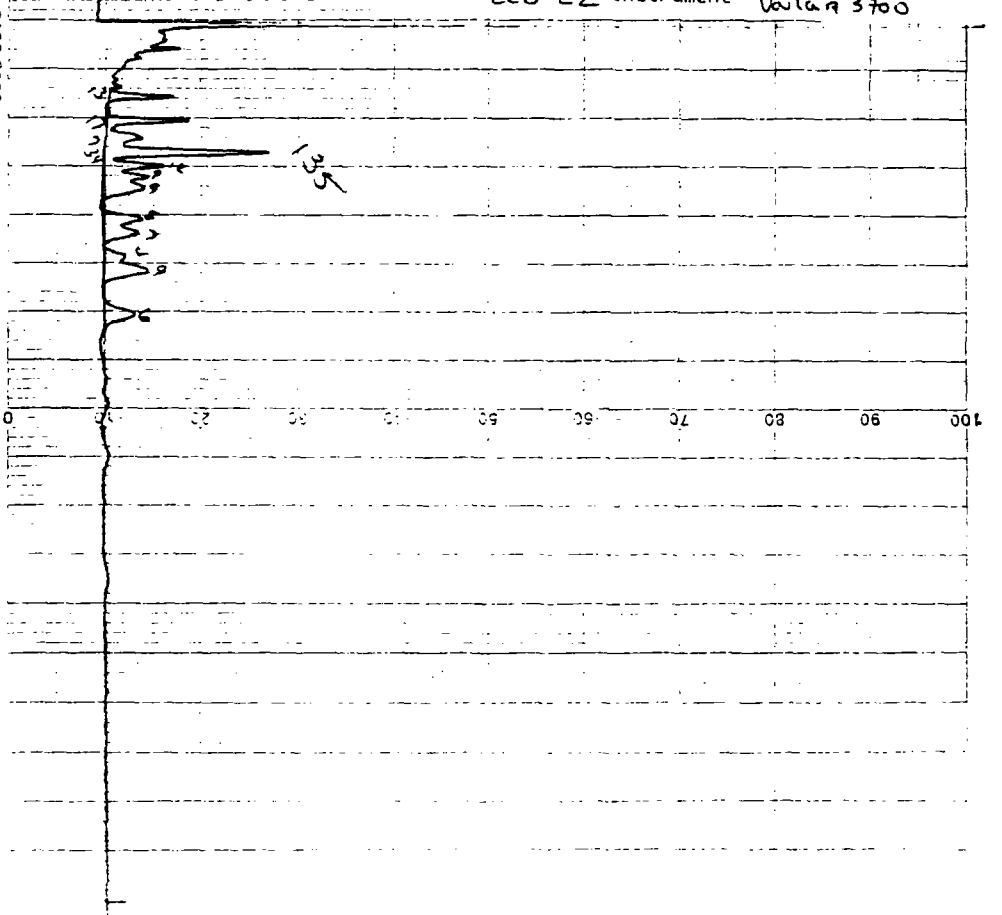
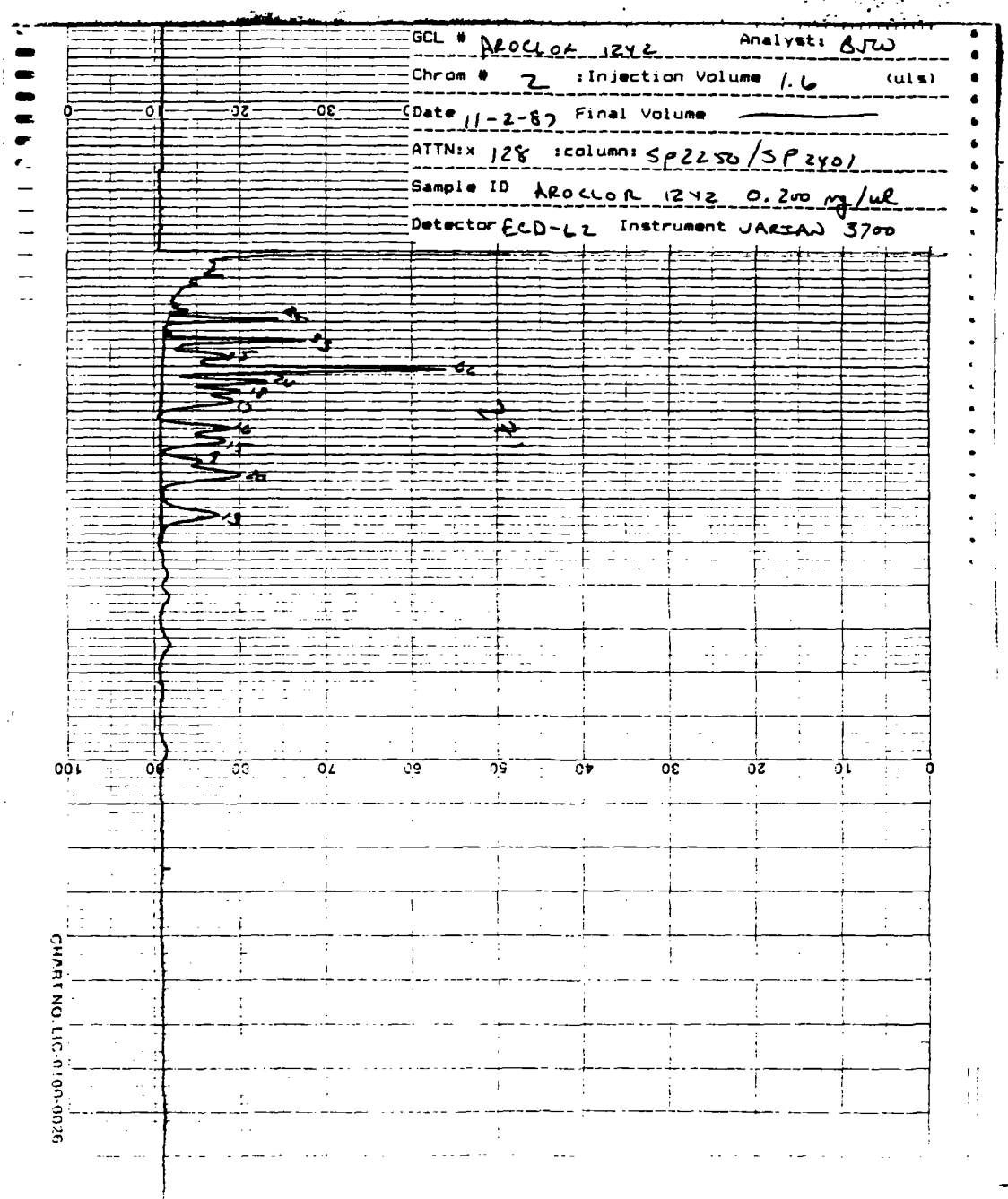


CHART NO. LIC-0100-0026


GCL # AROCLOR 1242
Analyst: BJW
Chrom # 2
:Injection Volume 1.6
(uls)
Date 11-2-87
Final Volume
ATTN:x 128
:column: SP2250/SP2401
Sample ID AROCLOR 1242 0.200 ng/ul
Detector ECD-L2
Instrument VARIAN 3700
CHART NO. LIC-0100-0026

GCL # AROCLOR 1242 Analyst: BJW

Chrom # 3 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:x 128 :column: SP2250/SP2401

Sample ID AROCLOR 1242 0.400 mg/ml

Detector ECD-L2 Instrument VARIAN 3700

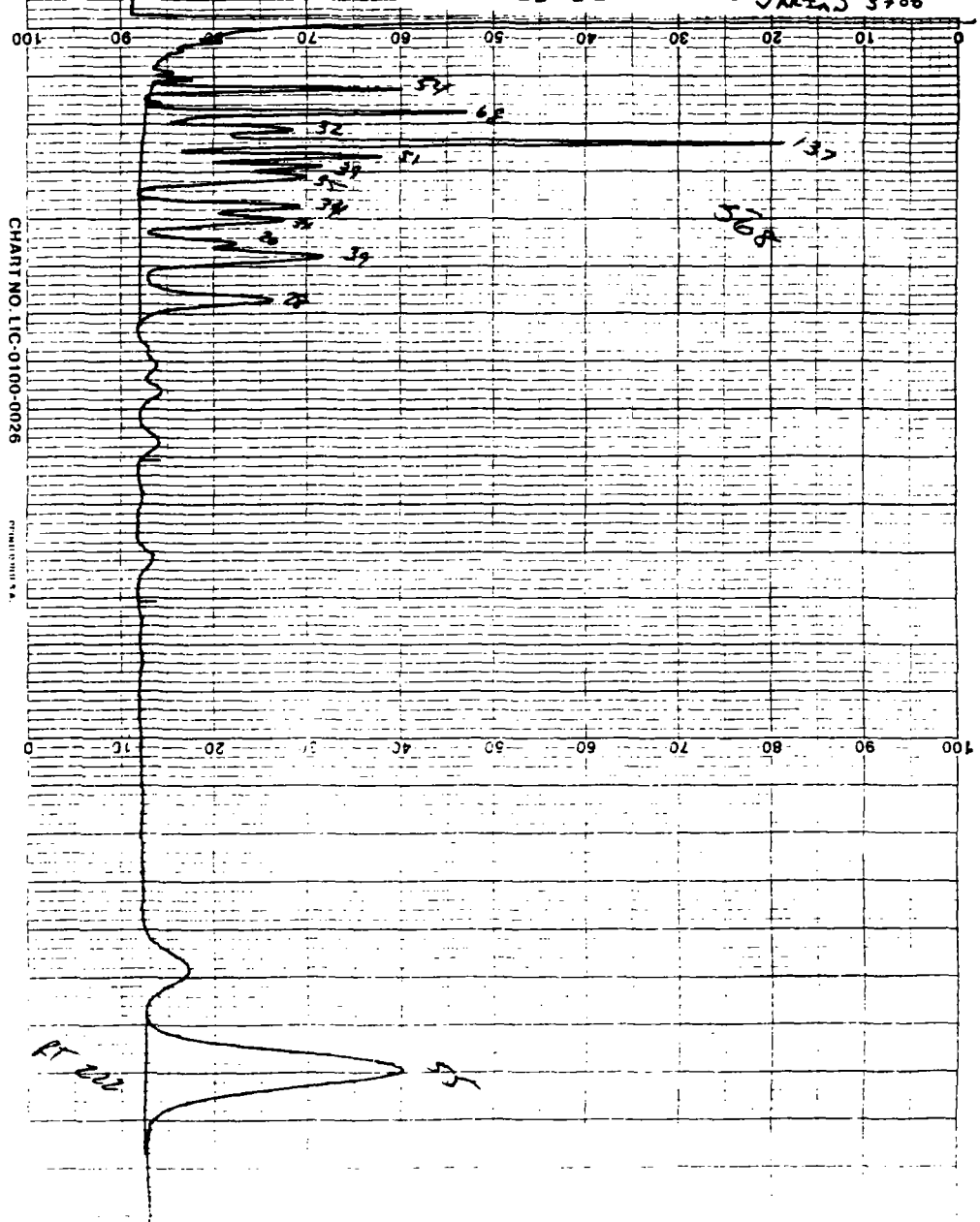


CHART NO. LIC-0100-0026

GCL # AROCLOR 1248 Analyst: BRW

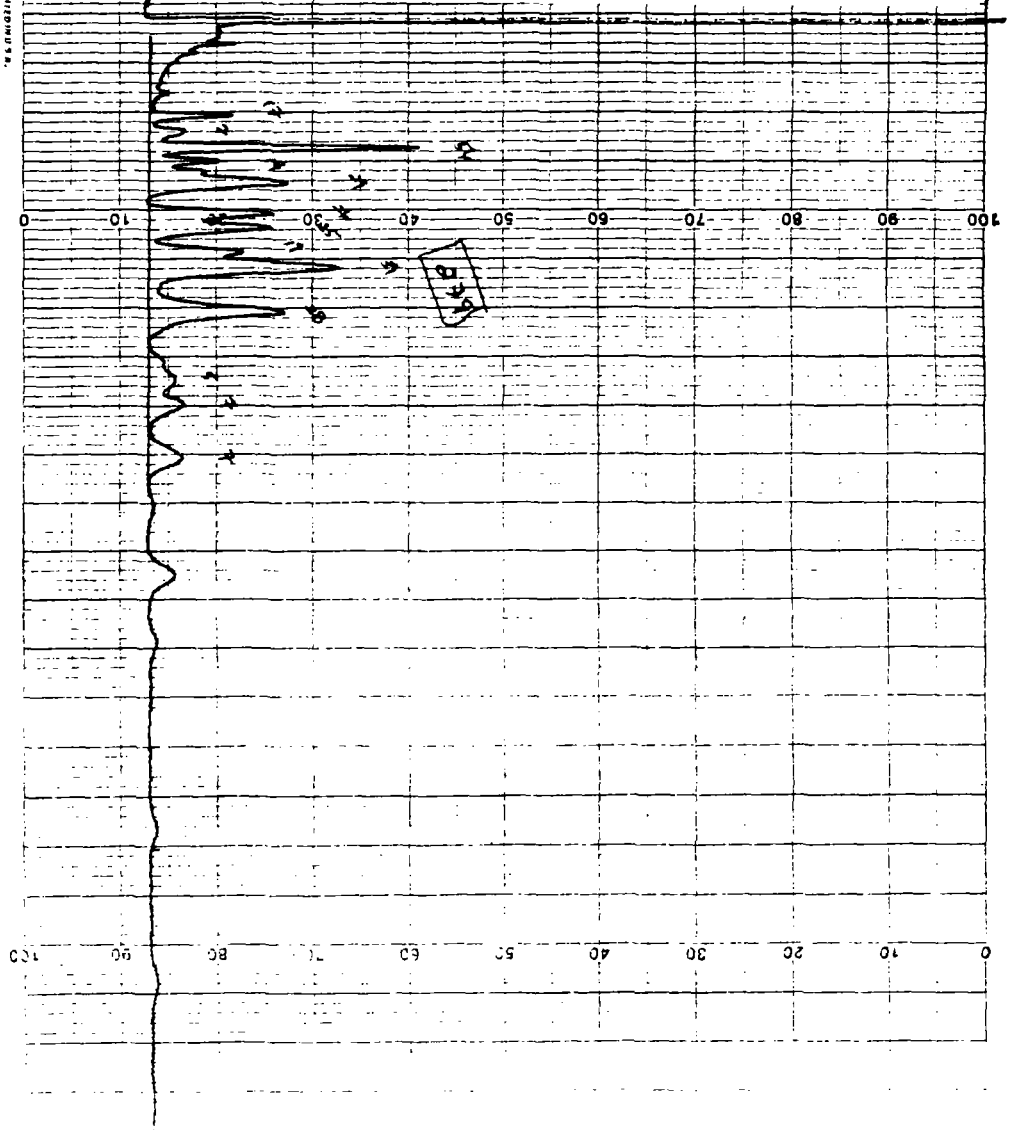
Chrom # 4 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——— (

ATTN:x 128 :column: SP 2250 / SP 2401

Sample ID AROCLOR 1248 0.200 mg/ml

Detector ECD-L2 Instrument VARIAN 3700



LIC-0100-0028

PRINTGRAPH

GCL # AROCLOR 1248 Analyst: RTW

Chrom # 5 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:x 128 :column: SP2250/SP2401

Sample ID AROCLOR 1248 0.300 mg/ml

Detector ECD-L2 Instrument VARIAN 3700

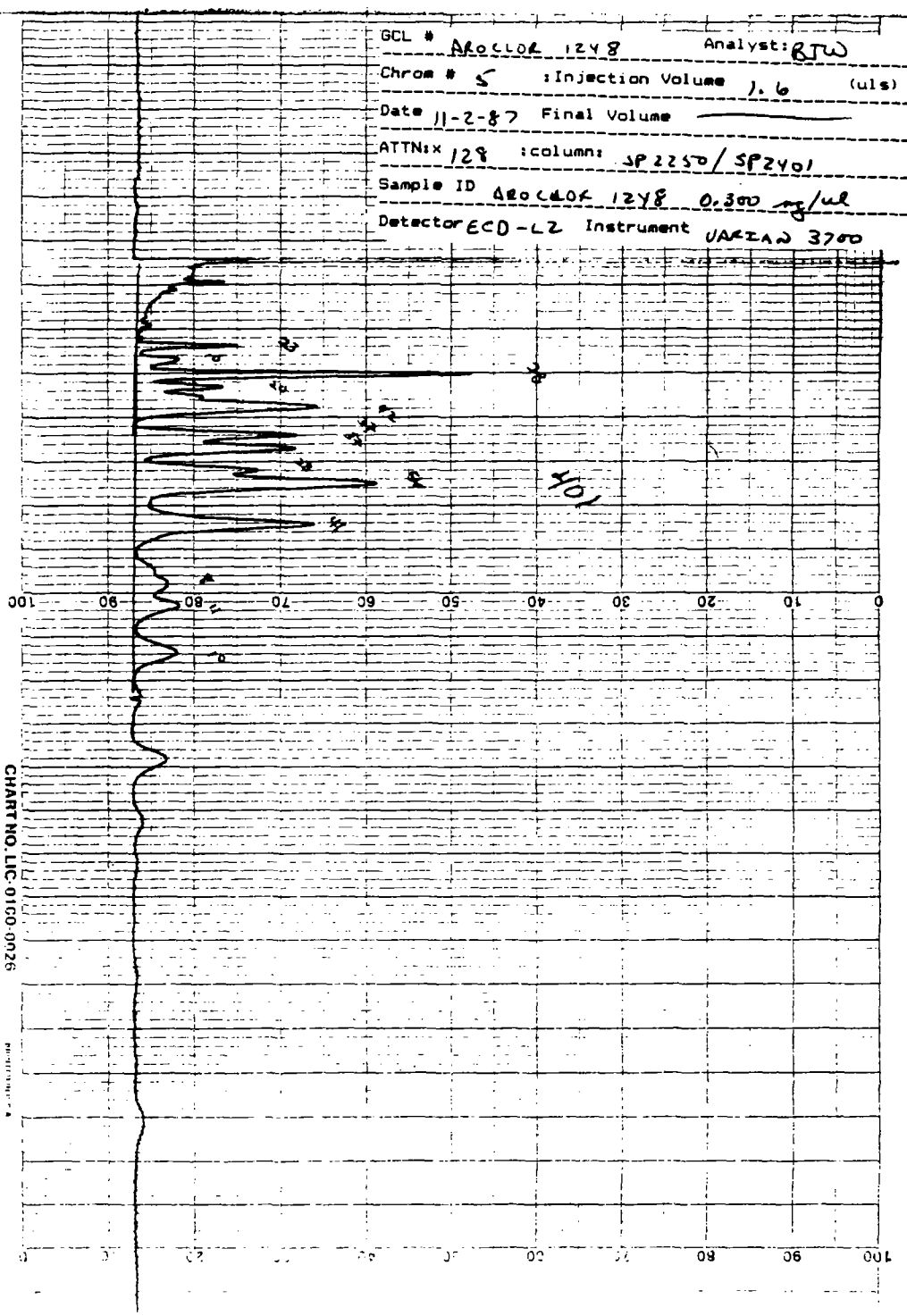


CHART NO. LIC-0100-0026

GCL # AROCLOR 1248 Analyst: BRW

Chrom # 6 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume —

ATTN:x 128 :column: SP2250/SP2401

Sample ID AROCLOR 1248 0.500 ng/ul

Detector ECD-C2 Instrument VARIAN 3700

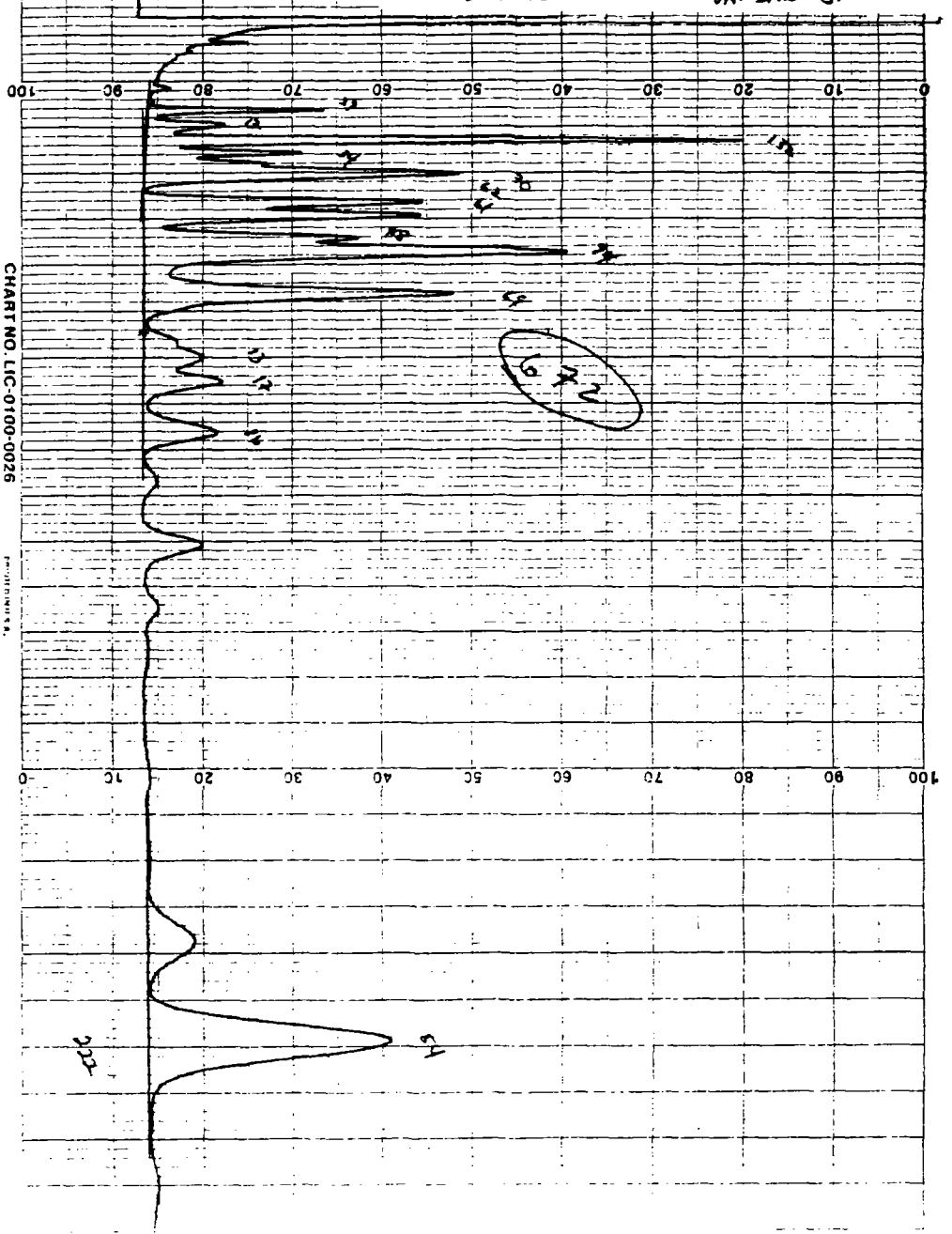


CHART NO. LIC-0100-0026

GCL # AROCLOR 1254 Analyst: BJW

Chrom # 7 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume —

ATTN:x 128 :column: SP2250 / SP2401

Sample ID AROCLOR 1254 0.200 mg/ml

Detector ECD-L2 Instrument VARIAN 3700

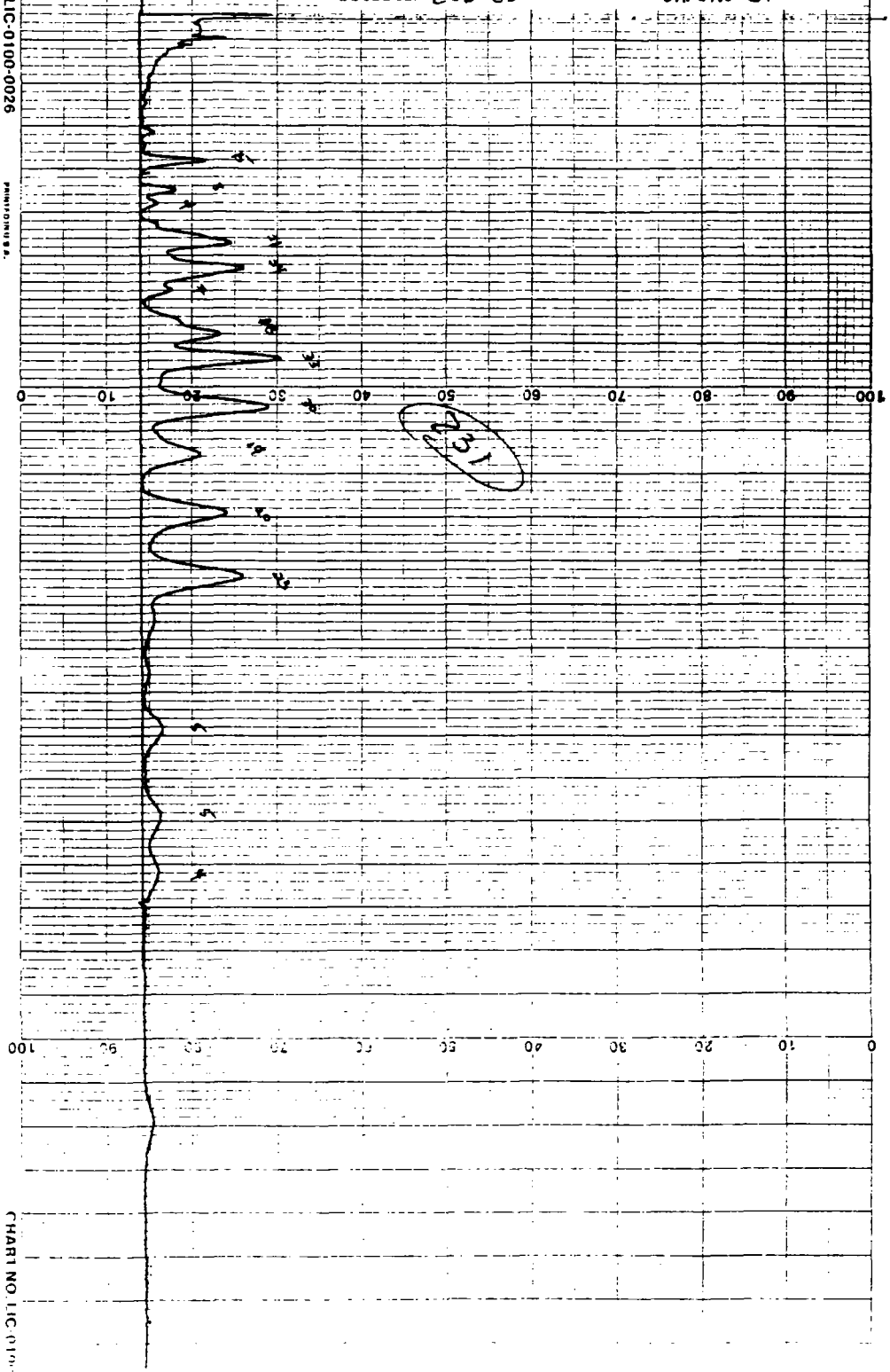


CHART NO. LIC-0100-0026

PRINTED IN U.S.A.

GCL # AROCLOR 1254 Analyst: BJW

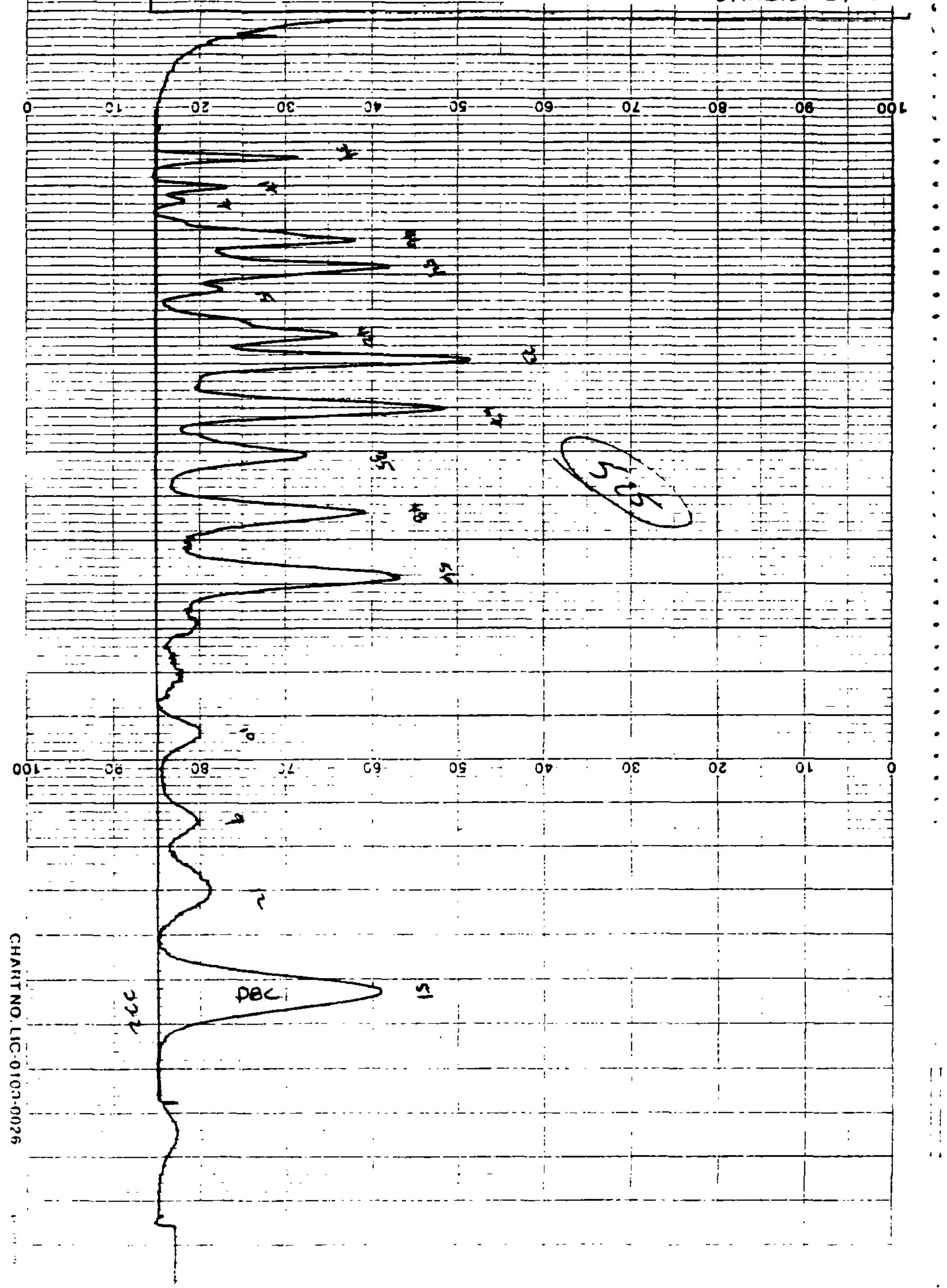
Chrom # 8 : Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ———

ATTN: x 128 : column: SP2250 / SP 2401

Sample ID AROCLOR 1254 0.500 ng/ul

Detector ECD-L2 Instrument VARIAN 3700



GCL # AROCLOR 1254 Analyst: BTW

Chrom # 9 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:x 128 :column: SP2250 / SP2401

Sample ID AROCLOR 1254 1.000 ng/ul

Detector ECD-C2 Instrument VARIAN 3700

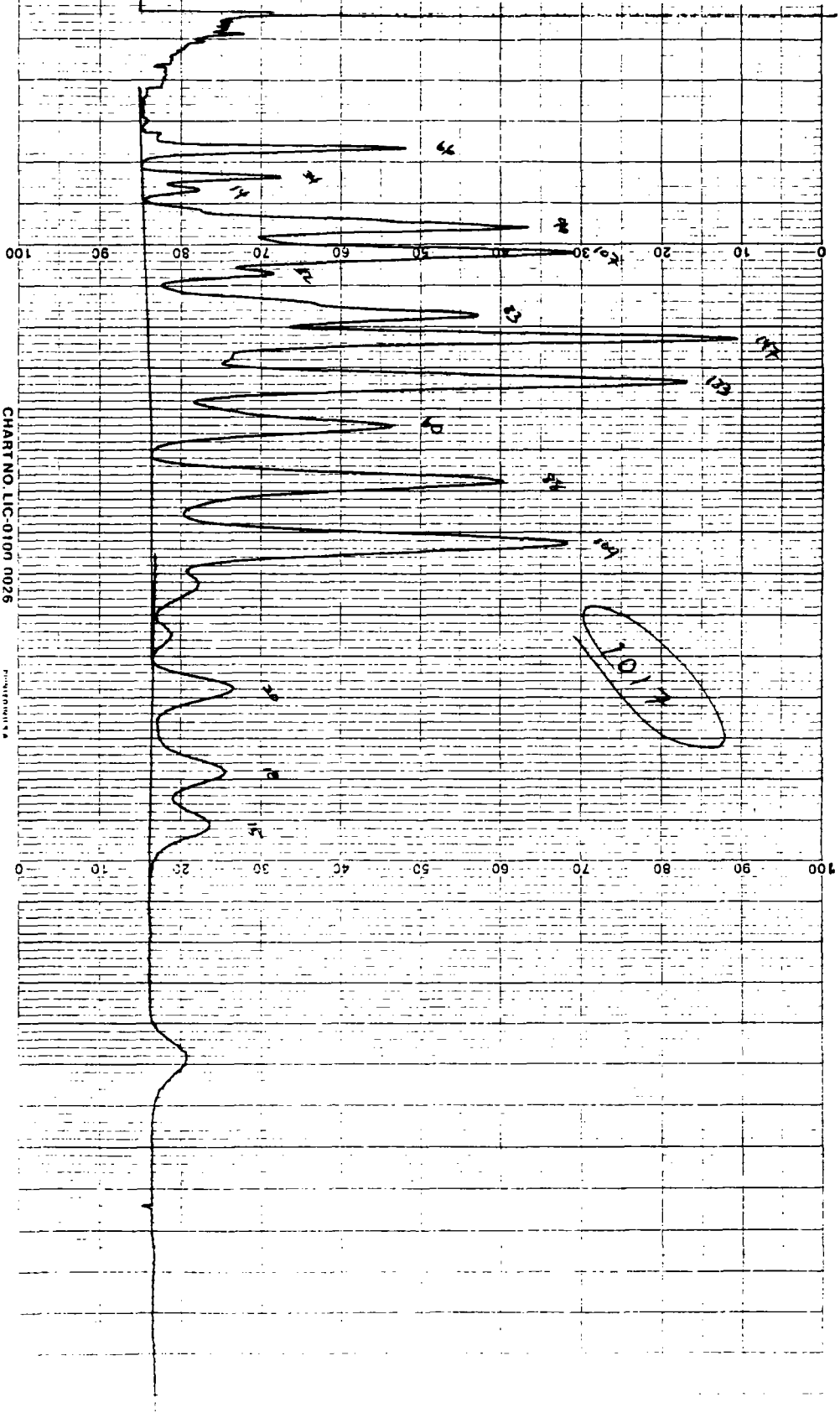


CHART NO. LIC-0100 0026

GCL # AROCLOR 1260 0.100 Analyst: BTW

Chrom # 10 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:x 128 :column: SP2250/ SP2401
10 16 0.500 ng/ul

Sample ID AROCLOR 1260 0.480 ng/ul

Detector ECD-62 Instrument VARIAN 3700

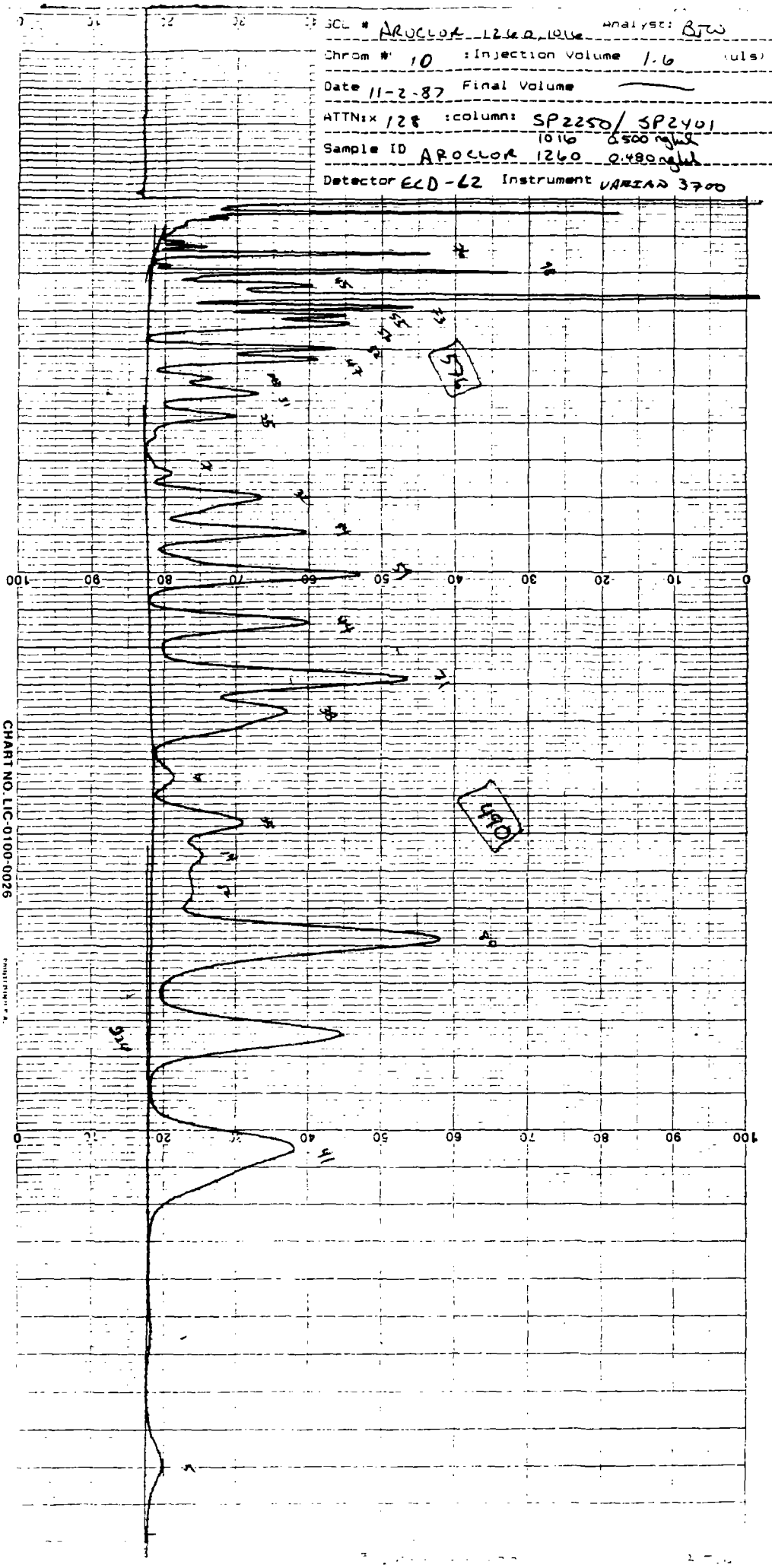
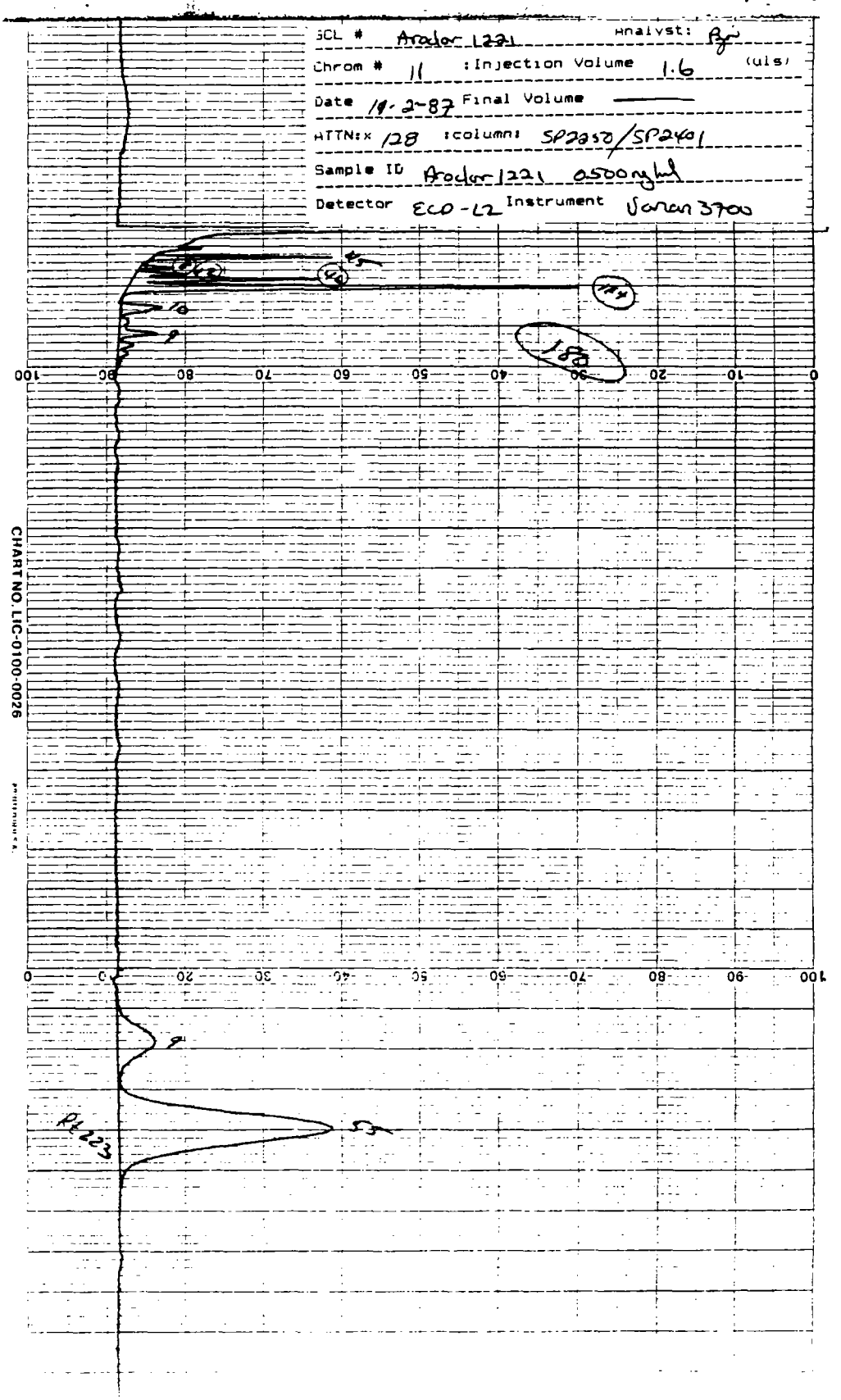


CHART NO. LIC-0100-0026


SCL # Aroclor 1221
Analyst: BJ
Chrom # 11
:Injection Volume 1.6 (uls)
Date 11-2-87
Final Volume
ATTN:x 128
:column: SP2250/SP2401
Sample ID Aroclor 1221 0.500ng/uL
Detector ECD-L2
Instrument Varian 3700
CHART NO. LIC-0100-0026

GCL # Aroclor 1232 Analyst: gw

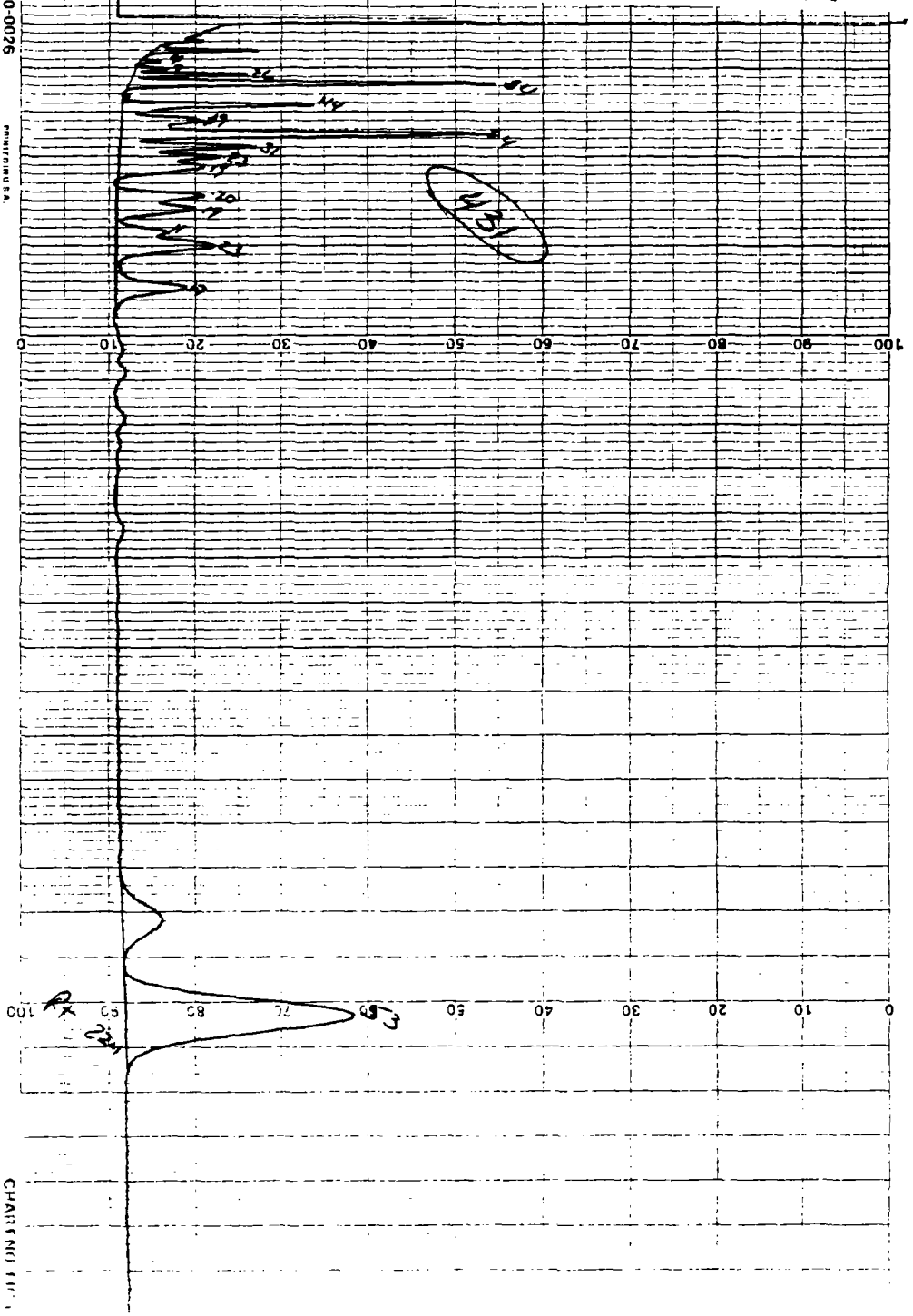
Chrom # 12 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:x 128 :column: SP2250/SP2401

Sample ID Aroclor 1232 0.500ng/ul

Detector ECD-62 Instrument Varian 3700



GCL # Standard A Analyst: BJW

Chrom # 19 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:x 128 :column: SP2250 / SP 2401

Sample ID Std Standard A

Detector ECD-L2 Instrument VARIAN 3700

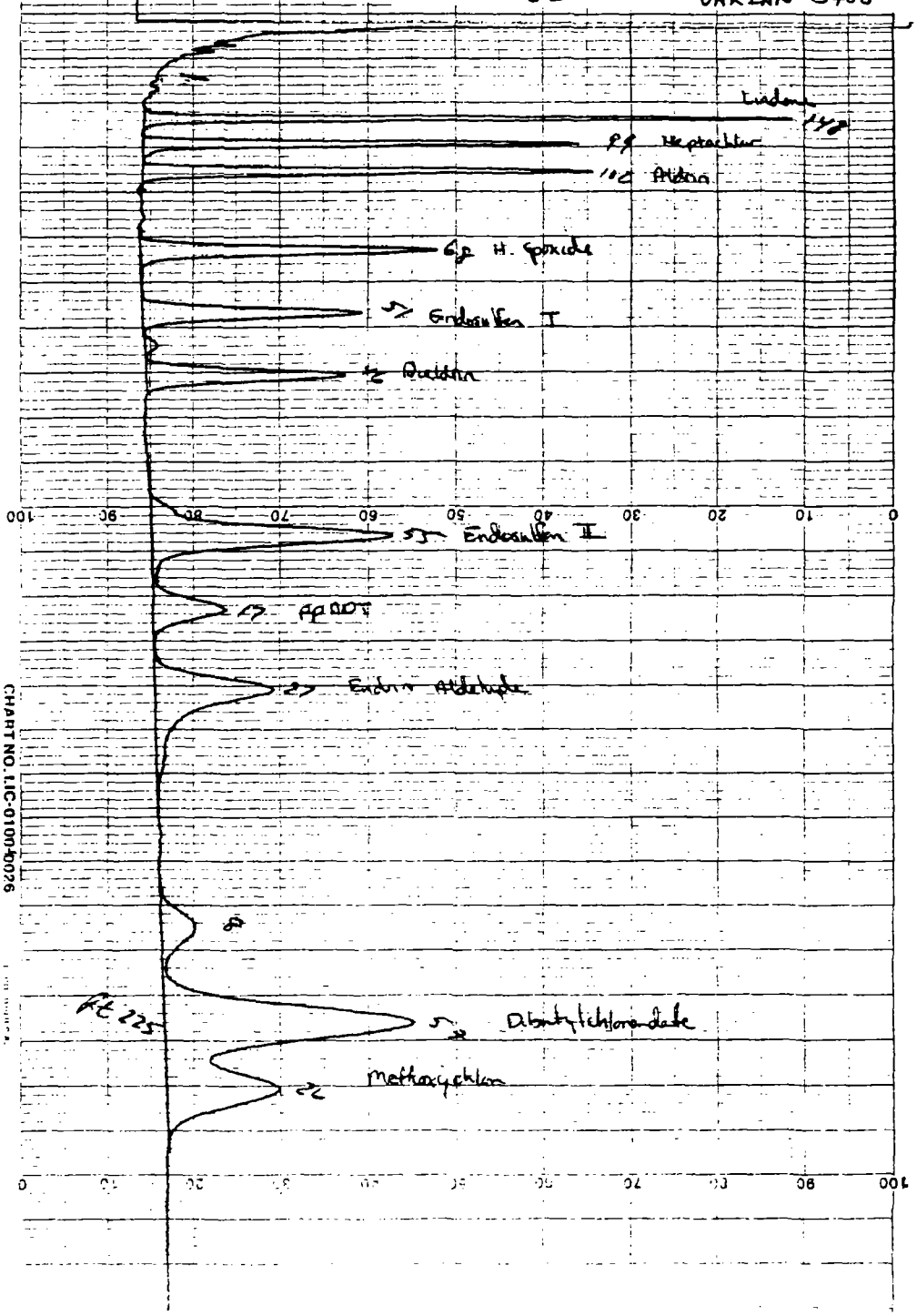


CHART NO. LIC-01004026

GCL # STANDARD B Analyst: BJW

Chrom # 14 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume ——

ATTN:x 128 :column: SP 2250/SP 2401

Sample ID and Standard B

Detector ECD-L2 Instrument VARIAN 3700

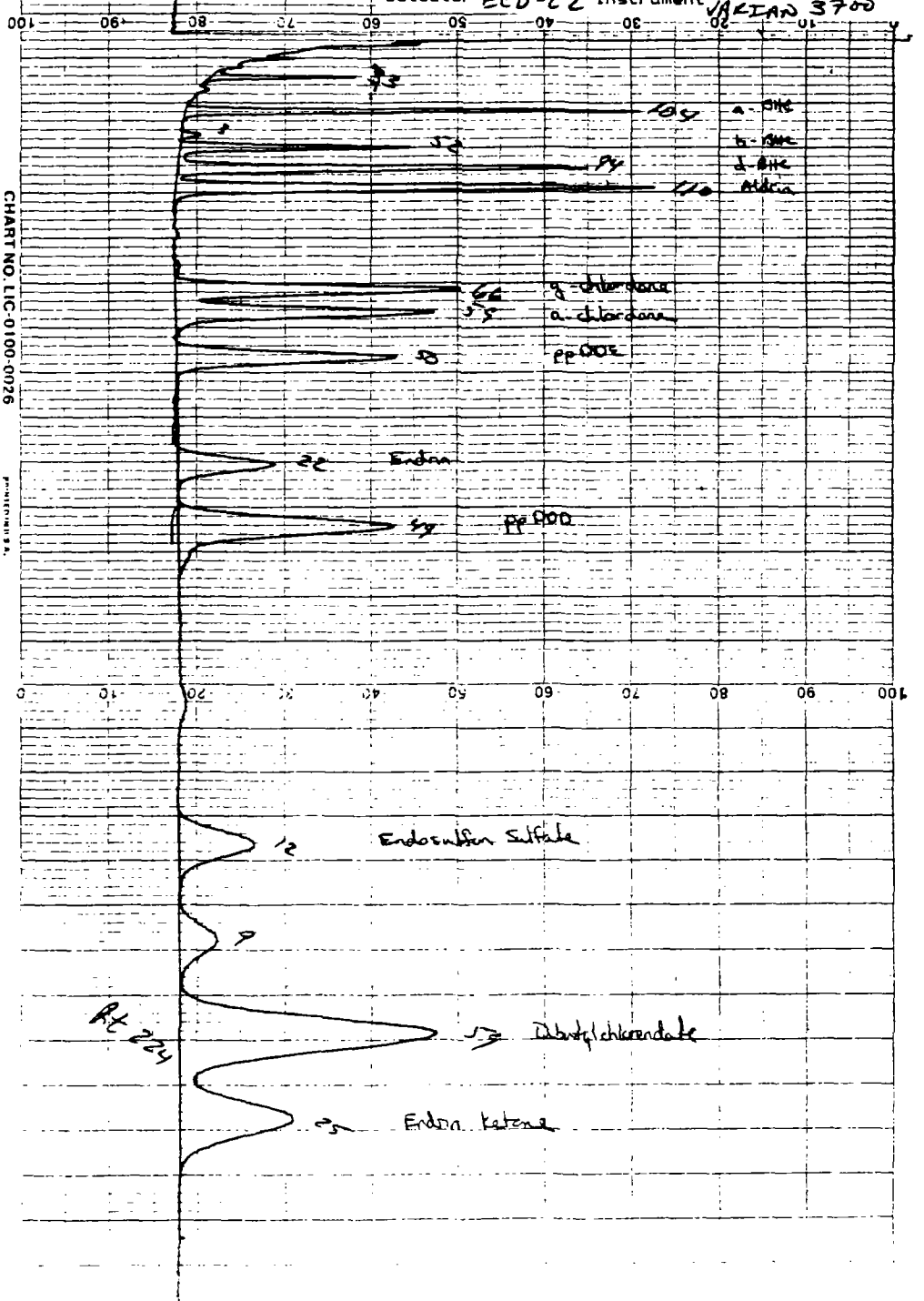


CHART NO. LIC-0100-0026

GCL # AB oil Analyst: BJW

Chrom # 16 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume 100ml

ATTN:x 128 :column: SP2250 / SP2401

Sample ID AB oil MacCorp

Detector ECD-C2 Instrument VARIAN 3700

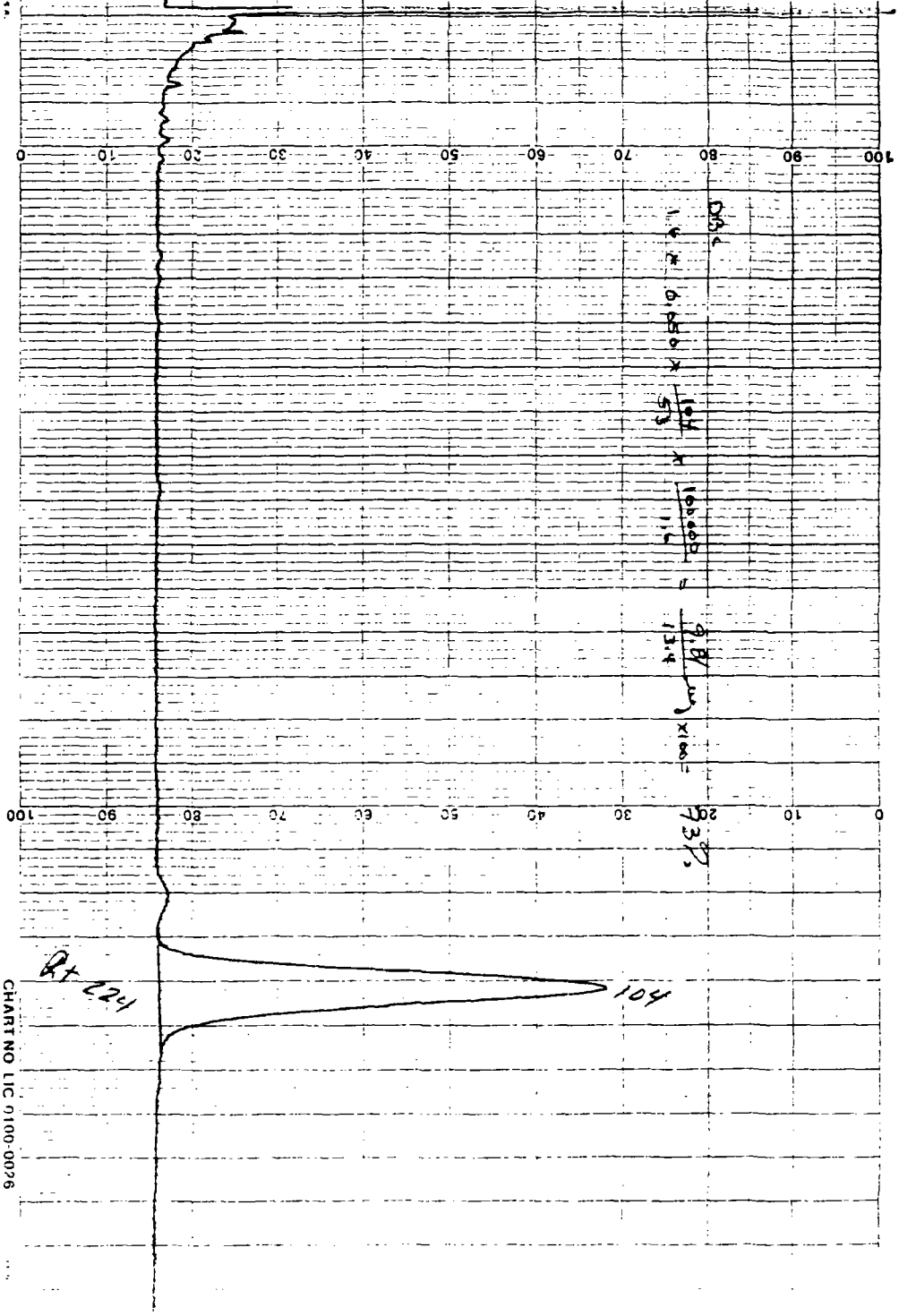
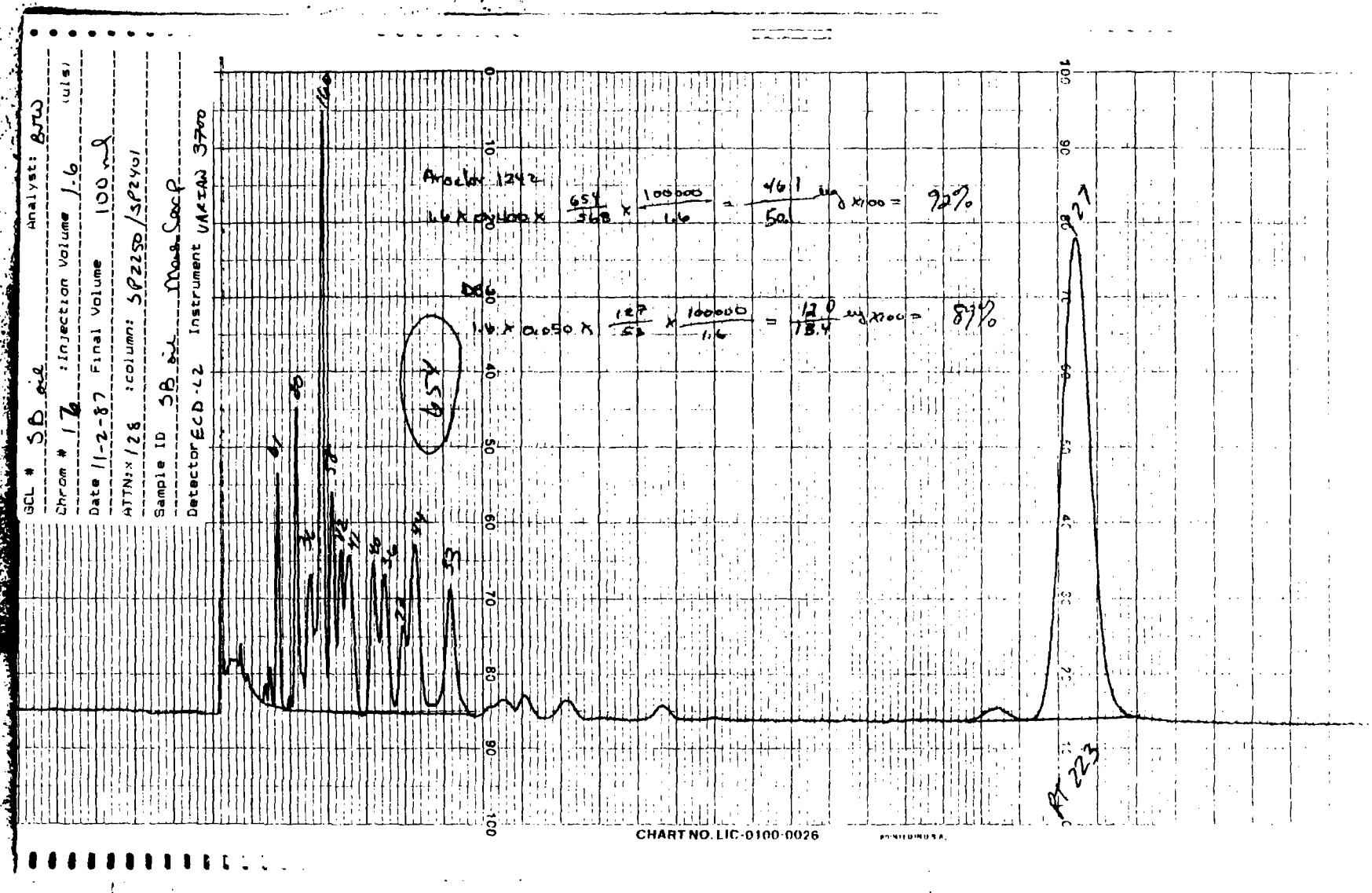
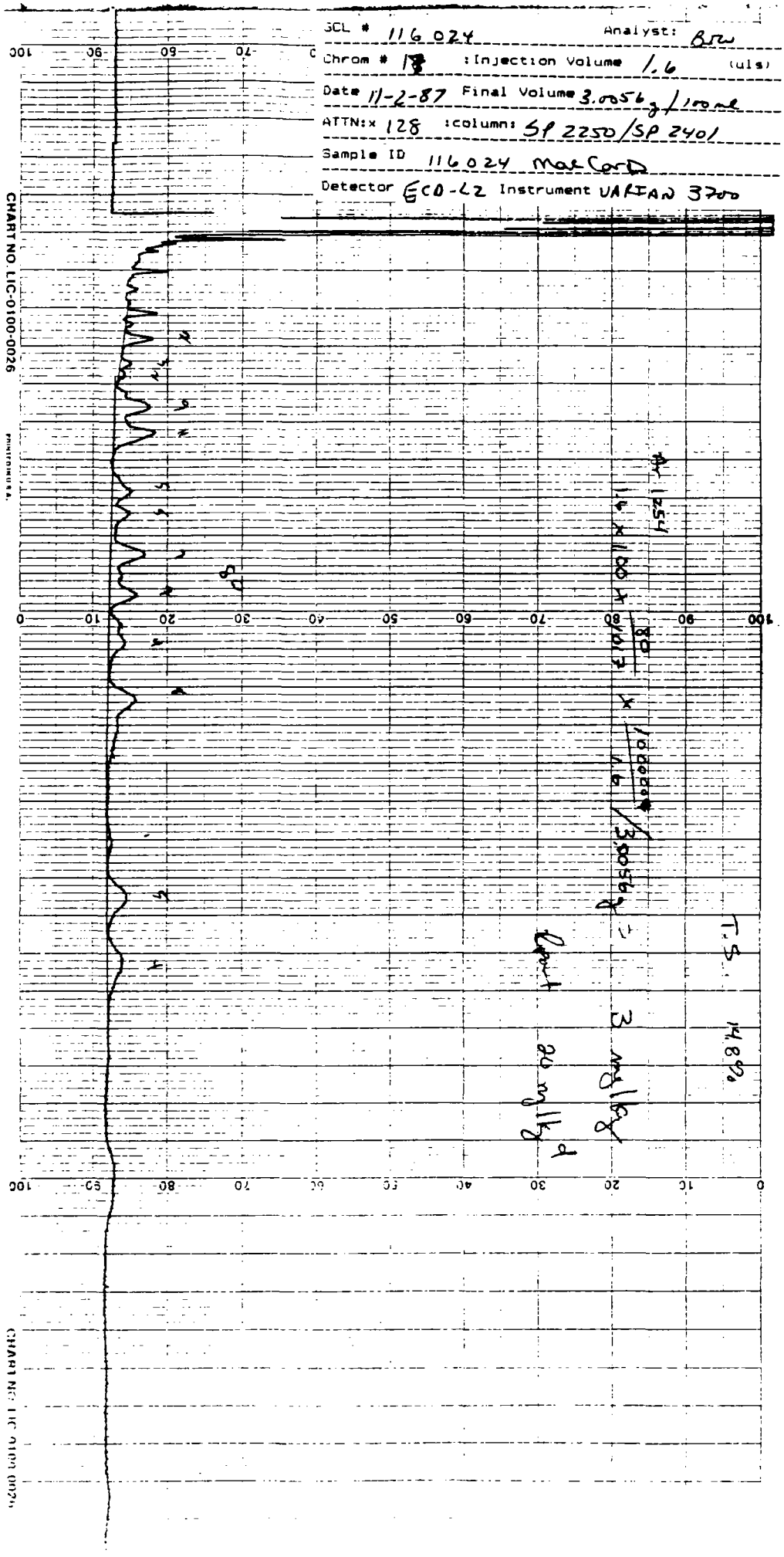


CHART NO LIC 0100-0026

0100-0026


GCL # 5B
Analyst: BRW
Chrom # 17
Injection Volume 1.6 (uls)
Date 11-2-87
Final Volume 100 ml
ATTN:x 128
Column: SP2250/SP2401
Sample ID 5B
Matrix Soil
Detector ECD-L2
Instrument VARIAN 3700
Aroclor 1242
1.6 x 0.400 x 654/568 x 100000/1.6 = 461/50 ug x100 = 92%
1.6 x 0.050 x 127/52 x 100000/1.6 = 120/18.4 ug x100 = 89%
65%
CHART NO. LIC-0100-0026


SCL # 116 024
Analyst: BRW
Chrom # 18
:Injection Volume 1.6 (uls)
Date 11-2-87
Final Volume 3.0056 g/100 ml
ATTN:x 128
:column: SP 2250/SP 2401
Sample ID 116 024 MacCord
Detector ECD-L2
Instrument VARIAN 3700
CHART NO. LIC-0100-0026
PHOTOMEDIA
Pr 1254
1.4 x 100 x 1000000 / 3.0056 g x 1.6 / 80
20 mg/kg
3 mg/kg
T.S. 14.8%

GCL # 116024 SPIKE Analyst: GTW

Chrom # 18 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume 3.0814g /100ml

ATTN:x 128 :column: SP2250 (SP2401)

Sample ID 116024 SPIKE MarSorpt

Detector ECD-62 Instrument VARIAN 3700

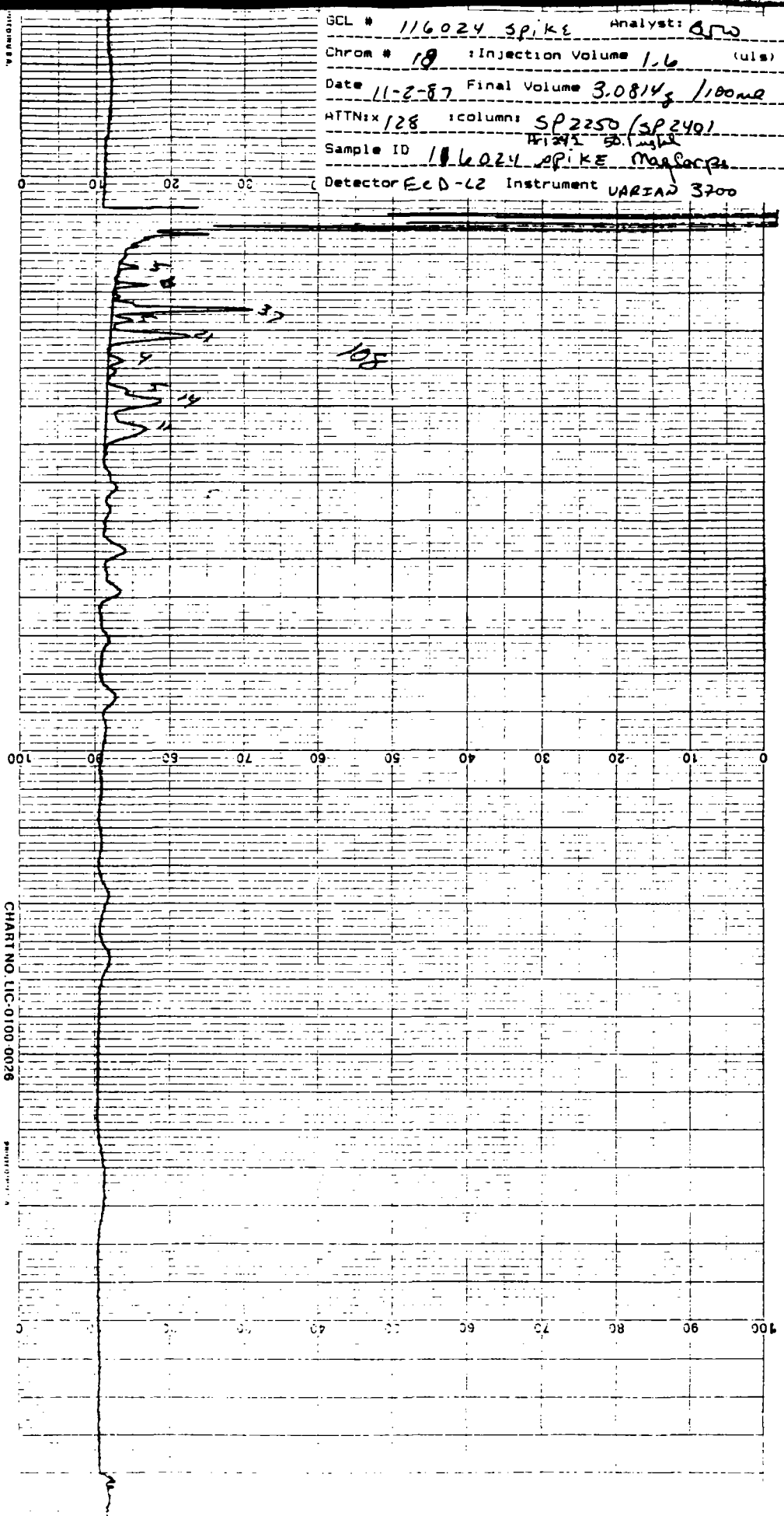


CHART NO. LIC-0100-0026

GCL # 116024 Spike Duplicate Analyst: BJW

Chrom # 19 : Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume 3.0360 g/100 ml

ATTN: x 128 : column: SP 2250 / SP 2401

Sample ID 116024 Aq Dup MacCard Ar 1242 50.1 mg

Detector ECD-L2 Instrument VARIAN 3700

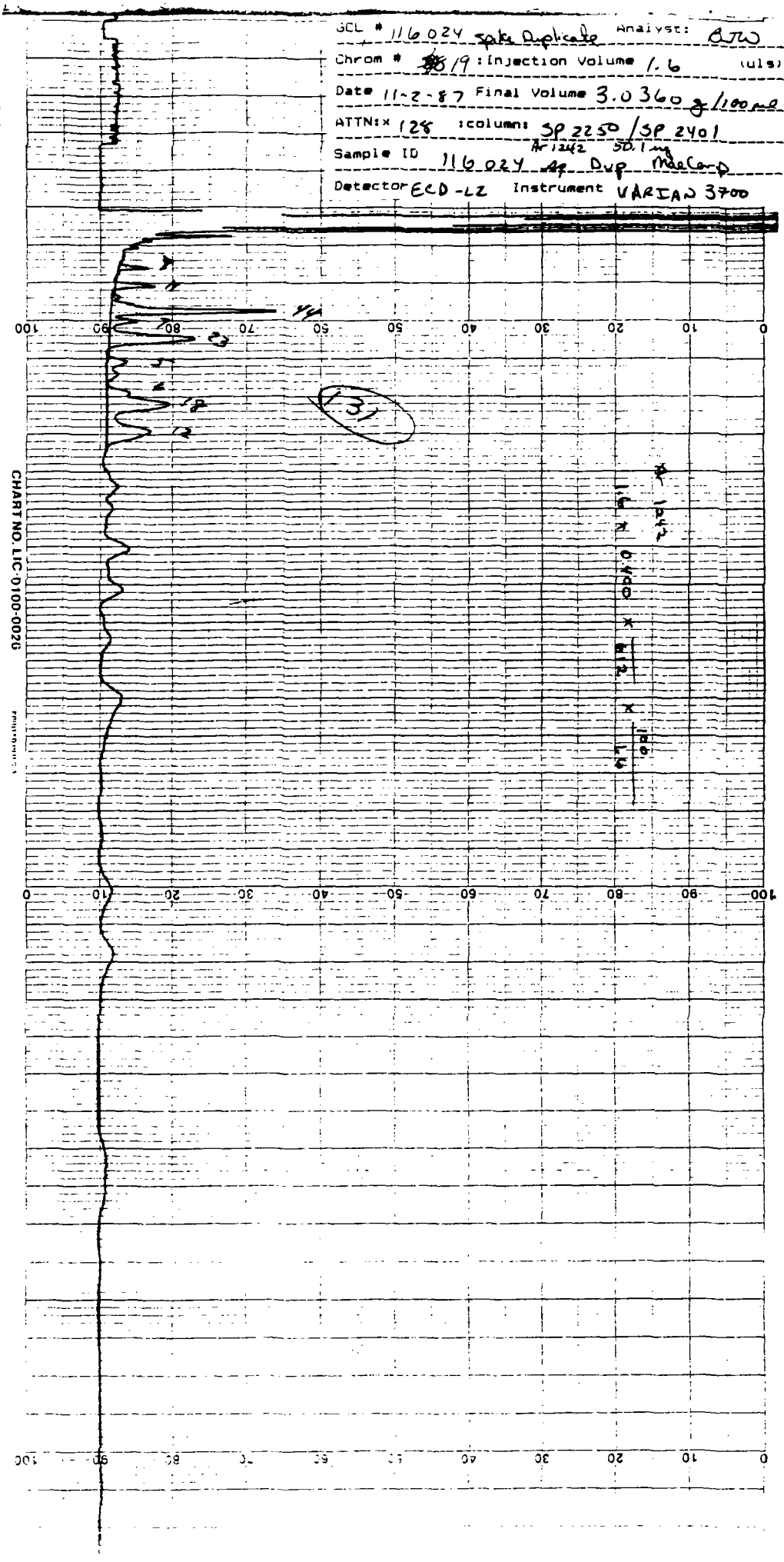


CHART NO. LIC-0100-0026

GCL # 116025 florisil Analyst: BJW

Chrom # 20 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 3.2697g/100ml

ATTN:x 128 :column: SP 2250/SP 2401

Sample ID 116025 Mae Corp

Detector ECD-C2 Instrument VARIAN 3700

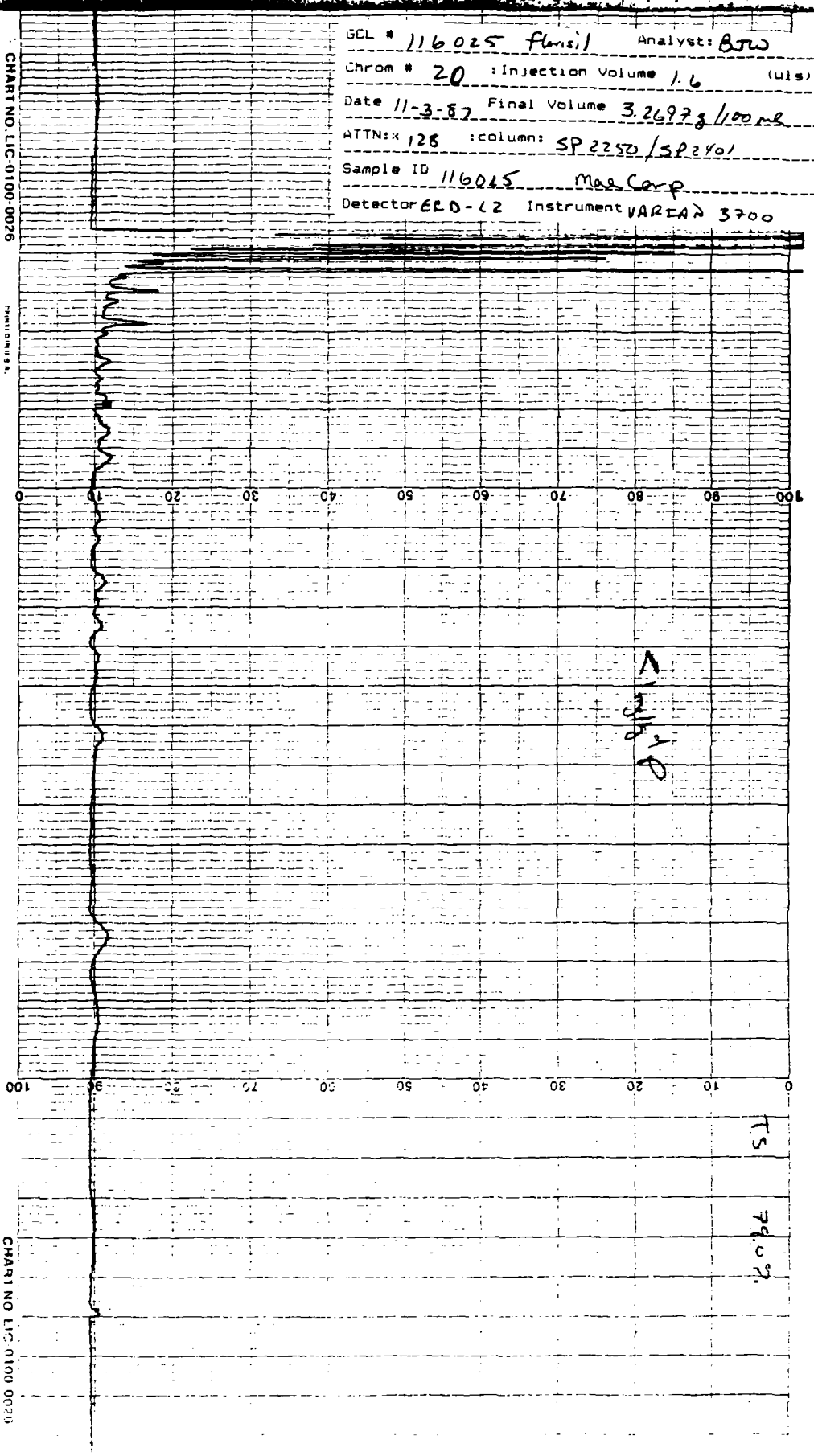
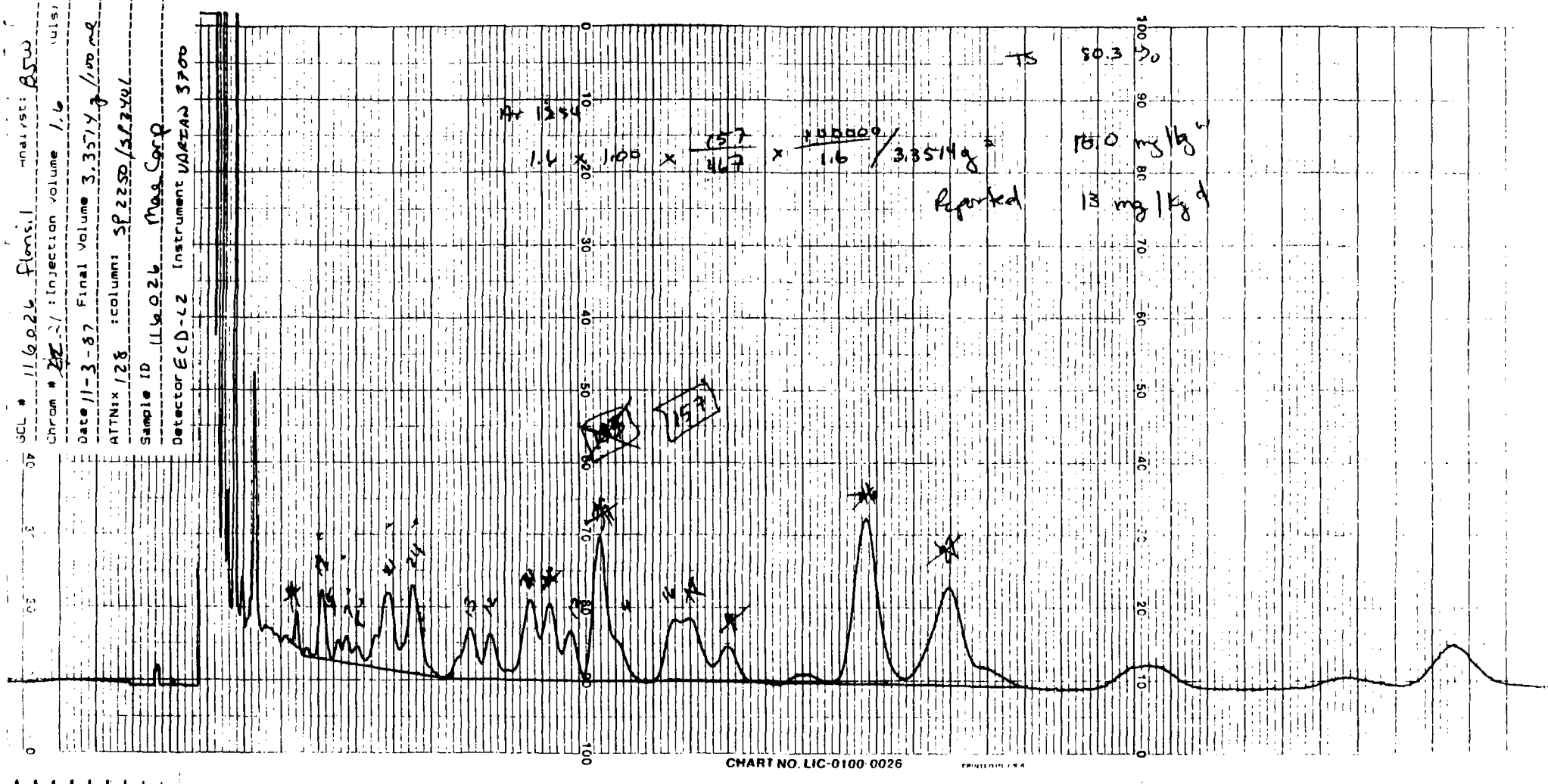


CHART NO. LIC-0100-0026

CHART NO. LIC-0100-0026


GCL # 116026 Florisil
Chrom # 2 :Injection Volume 1.6 (mls)
Date 11-3-87 Final Volume 3.3514 g/100 ml
ATTN:x 128 :column: SP2250/SP2401
Sample ID 116026 Mag Corp
Detector ECD-62 Instrument VARIAN 3700
#1354
1.6 x 100 x 157/467 x 100000/1.6 / 3.3514 g
157
TS 80.3 %
100 mg/kg
Reported 13 mg/kg
CHART NO. LIC-0100-0026

GCL # 116027 Analyst: BJW

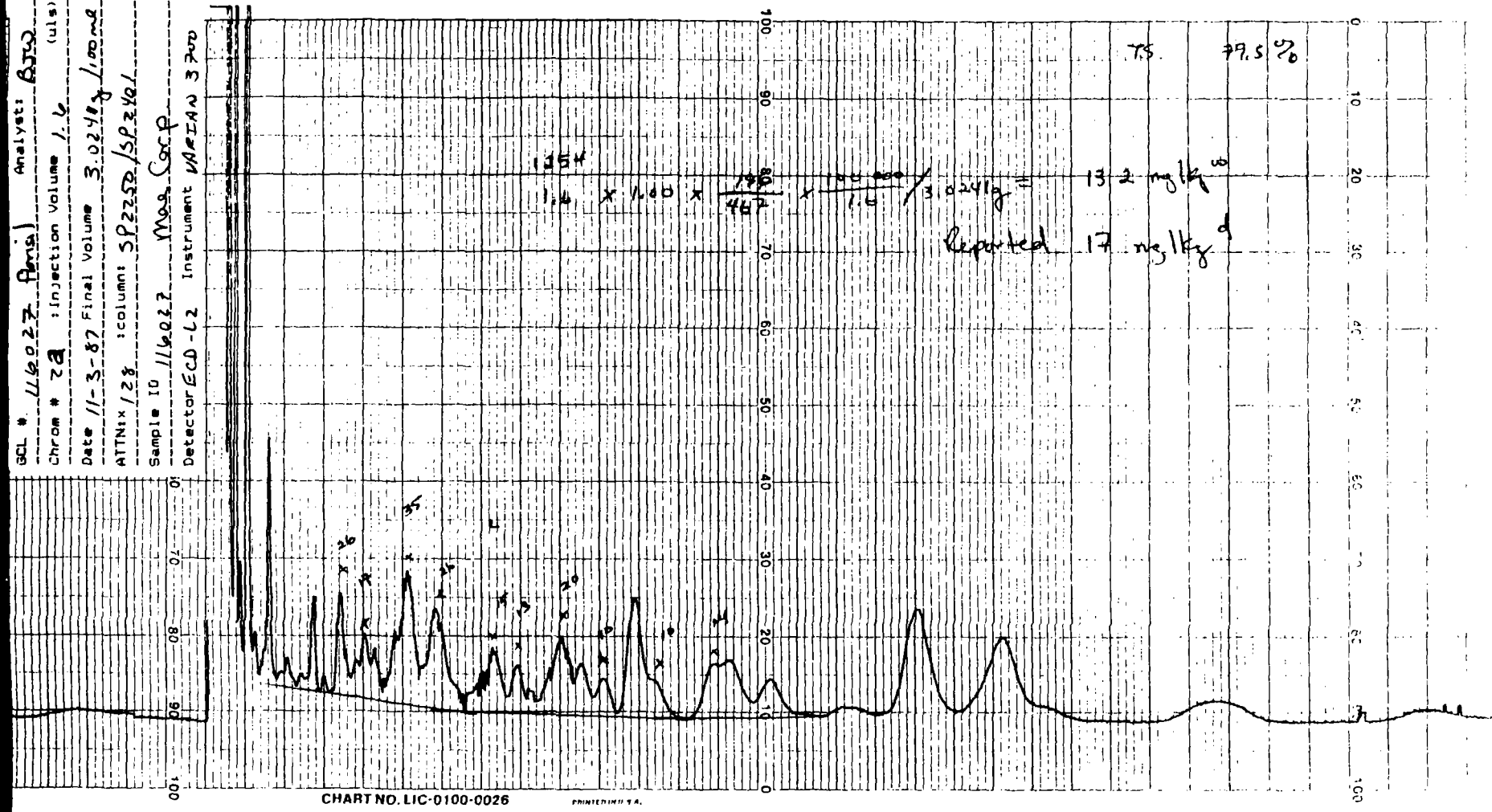
Chrom # 2a Injection Volume 1.6 (uls)

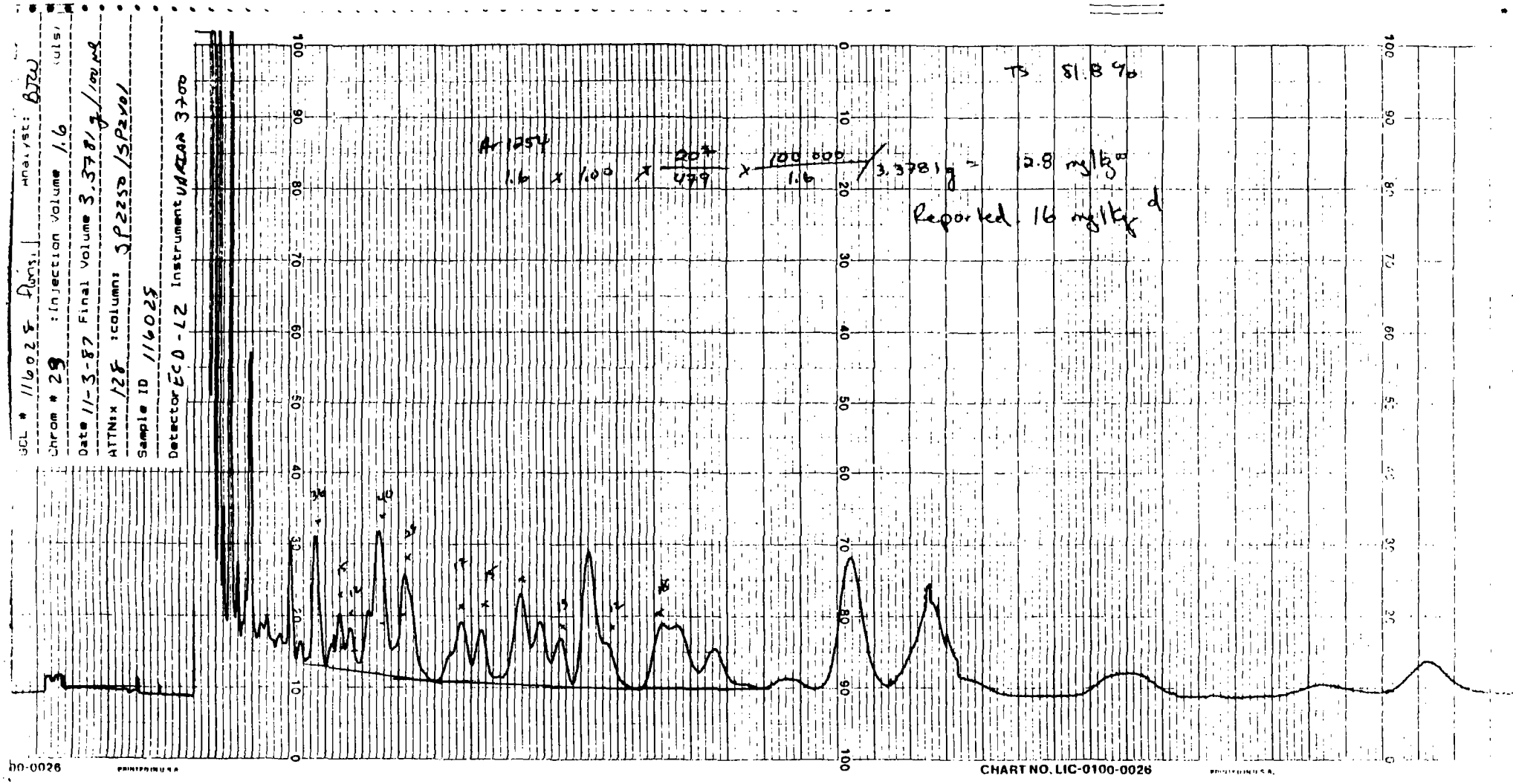
Date 11-3-87 Final Volume 3.0241g/100ml

ATTNix 128 Column: SP2250/SP2401

Sample ID 116022 Mod Soxp

Detector ECD-L2 Instrument VARIAN 3700




GCL # 116025 Pons
Analyst: BJRW
Chrom # 23
:Injection Volume 1.6 (uls)
Date 11-3-87 Final Volume 3.3781 g/100 mg
ATTN:x 128 :column: SP2250/SP2401
Sample ID 116025
Detector ECD-L2 Instrument VARIAN 3700
Ar1254
1.6 x 1.00 x 20% / 479 x 100.000 / 1.6 / 3.3781 g = 12.8 mg/kg
Reported 16 mg/kg d
TB 81.8%
CHART NO. LIC-0100-0026

GCL # HB SOIL Analyst: BJW

Chrom # 28 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 1000 ml

ATTN:x 128 :column: SP 2250 / SP 2401

Sample ID HB Soil

Detector ECD-L2 Instrument VARIAN 3700

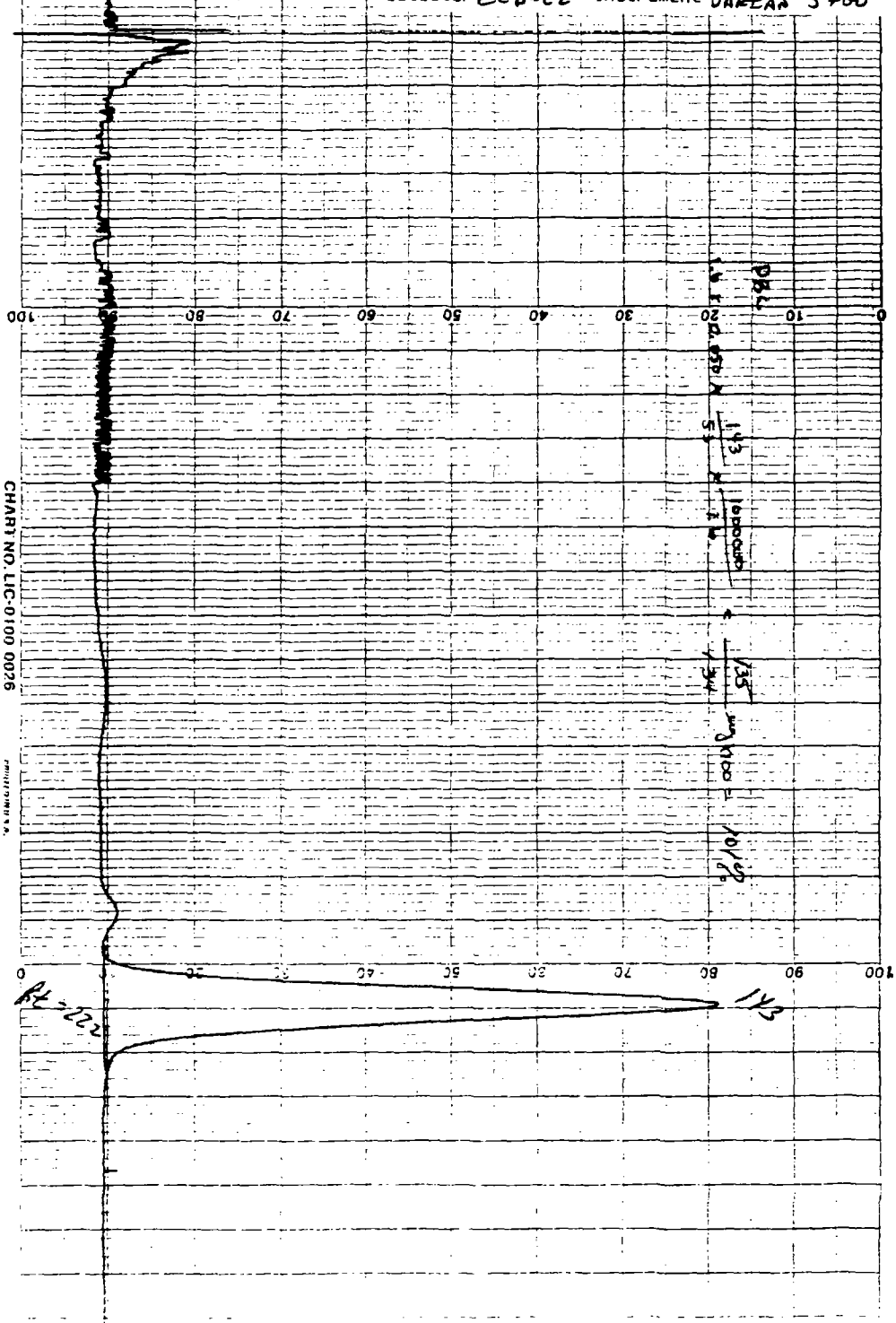


CHART NO. LIC-0100 0026

GCL # AROCLOR 1242 Analyst: BTW

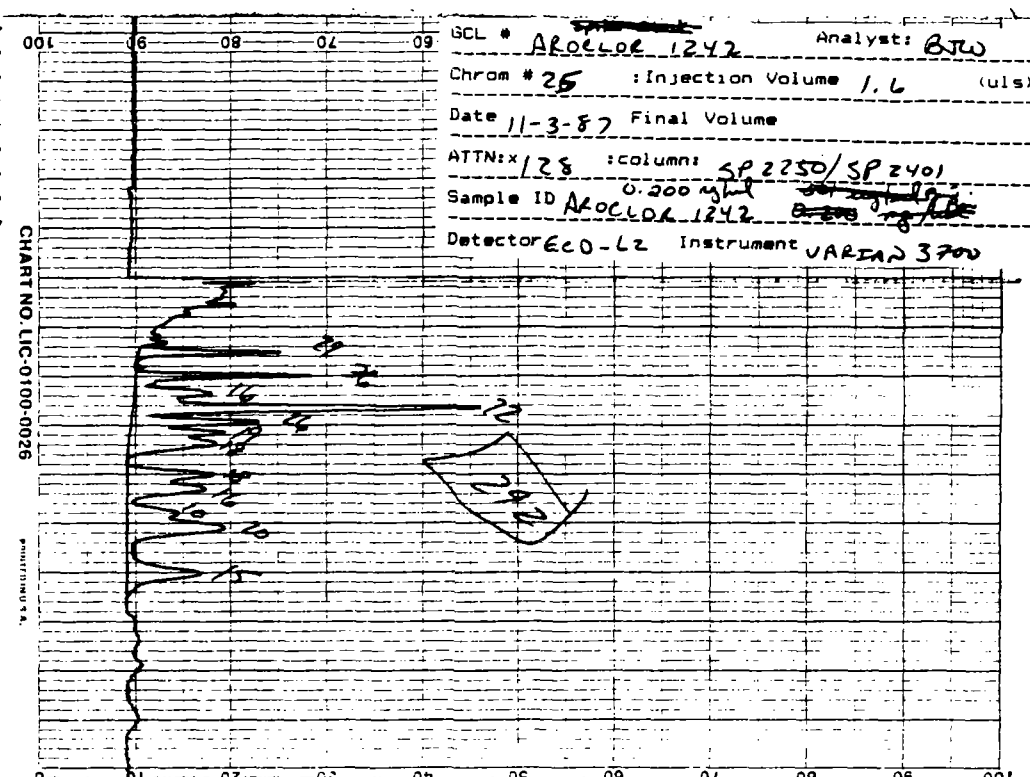
Chrom # 25 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume

ATTN:x128 :column: SP2250/SP2401

Sample ID AROCLOR 1242 0.200 ug/ml

Detector ECD-L2 Instrument VARIAN 3700



GCL # SB Soil Analyst: BRO

Chrom # 2B : Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 1000ml

ATTN: x 128 : column: SP2250/SP2401

Sample ID SB Soil

Detector ECD-L2 Instrument VARIAN 3700

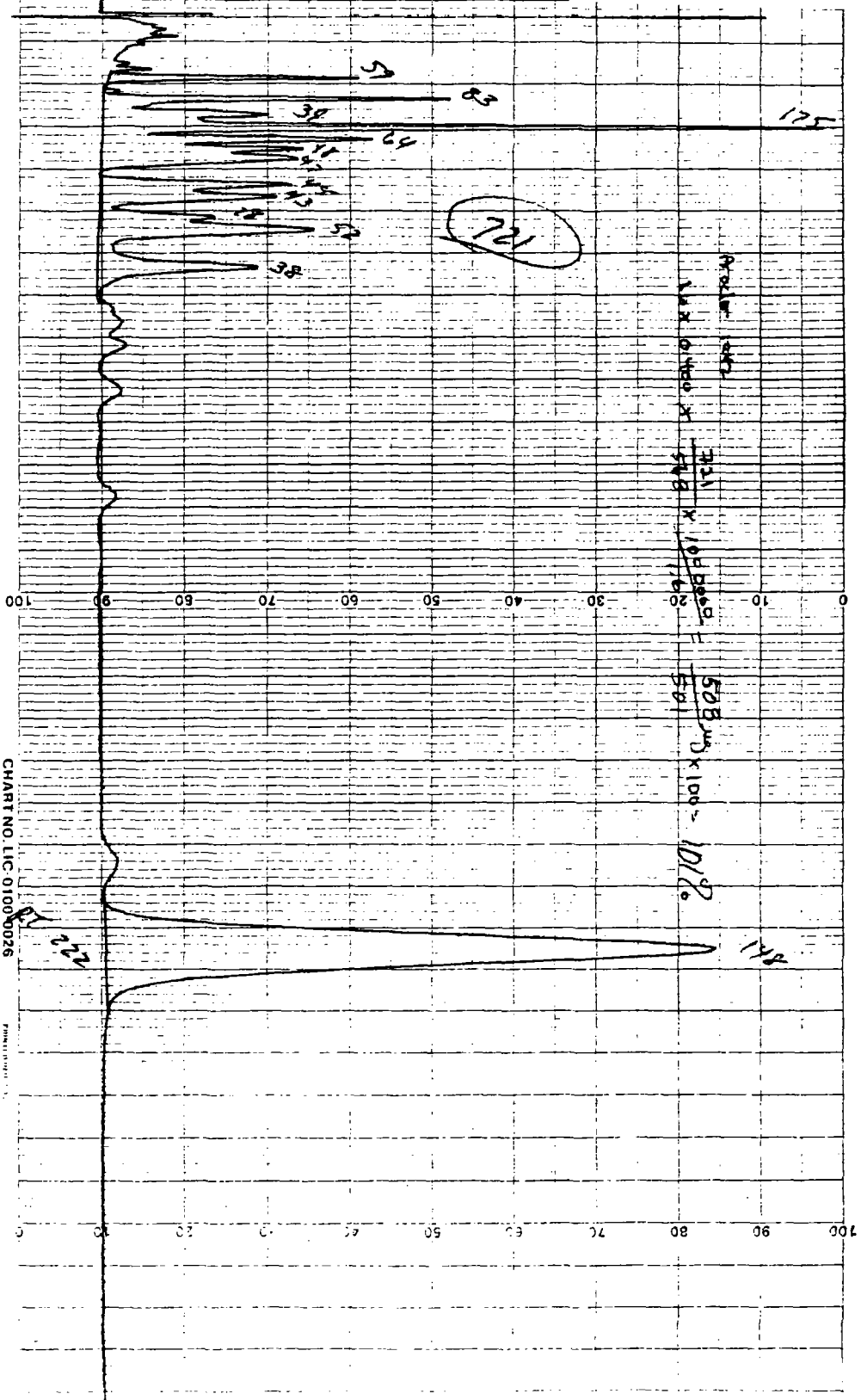
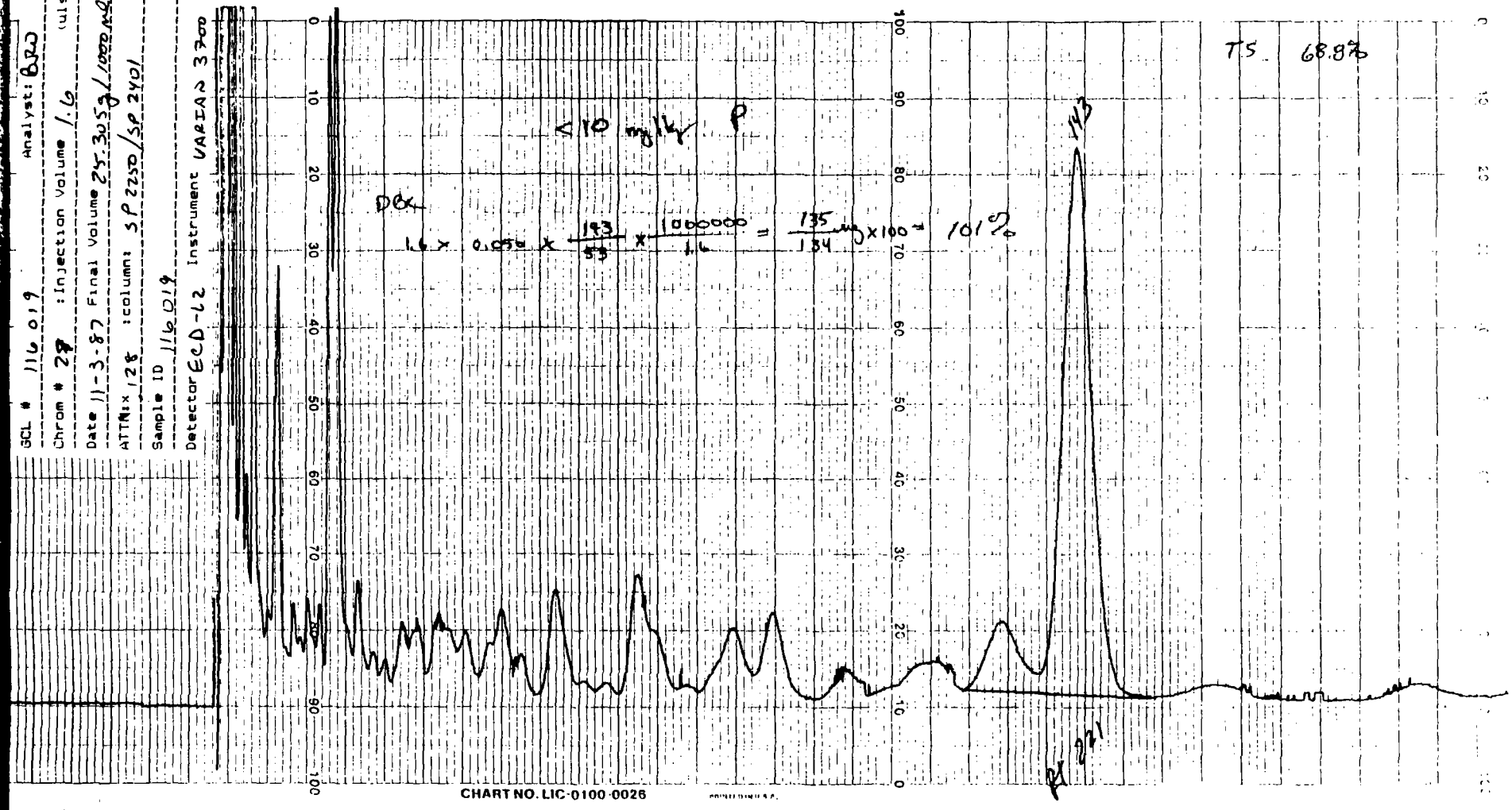


CHART NO. LIC-0100-0026


GCL # 116019
Chrom # 28 :Injection Volume 1.6 (uls)
Date 11-3-87 Final Volume 25.3053g/1000mg
ATTNix 128 :column: SP 2250/SP 2401
Sample ID 116019
Detector ECD-L2 Instrument VARIAN 3700
Analyst: BRD
<10 mg/kg P
DCX
1.6 x 0.050 x 193/53 x 1000000/1.6 = 135/134 mg x 100 → 101%
TS 68.8%
143
CHART NO. LIC-0100-0026

GCL # 116020 Analyst: BRW

Chrom # 29 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 25.320 g/100 ml

ATTN:x 128 :column: SP2250 /SP 2401

Sample ID 116020

Detector ECD-62 Instrument VARIAN 3700

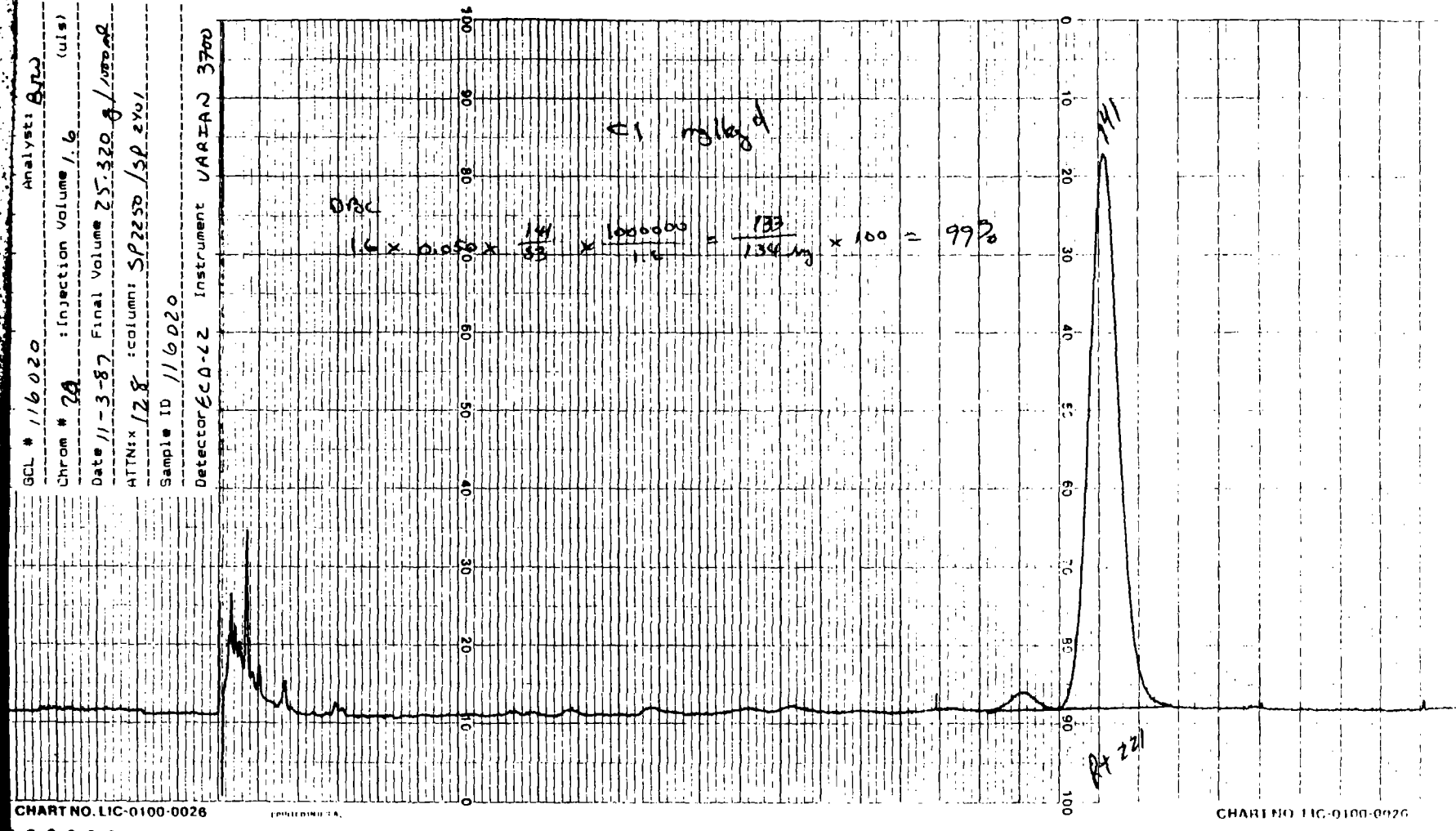
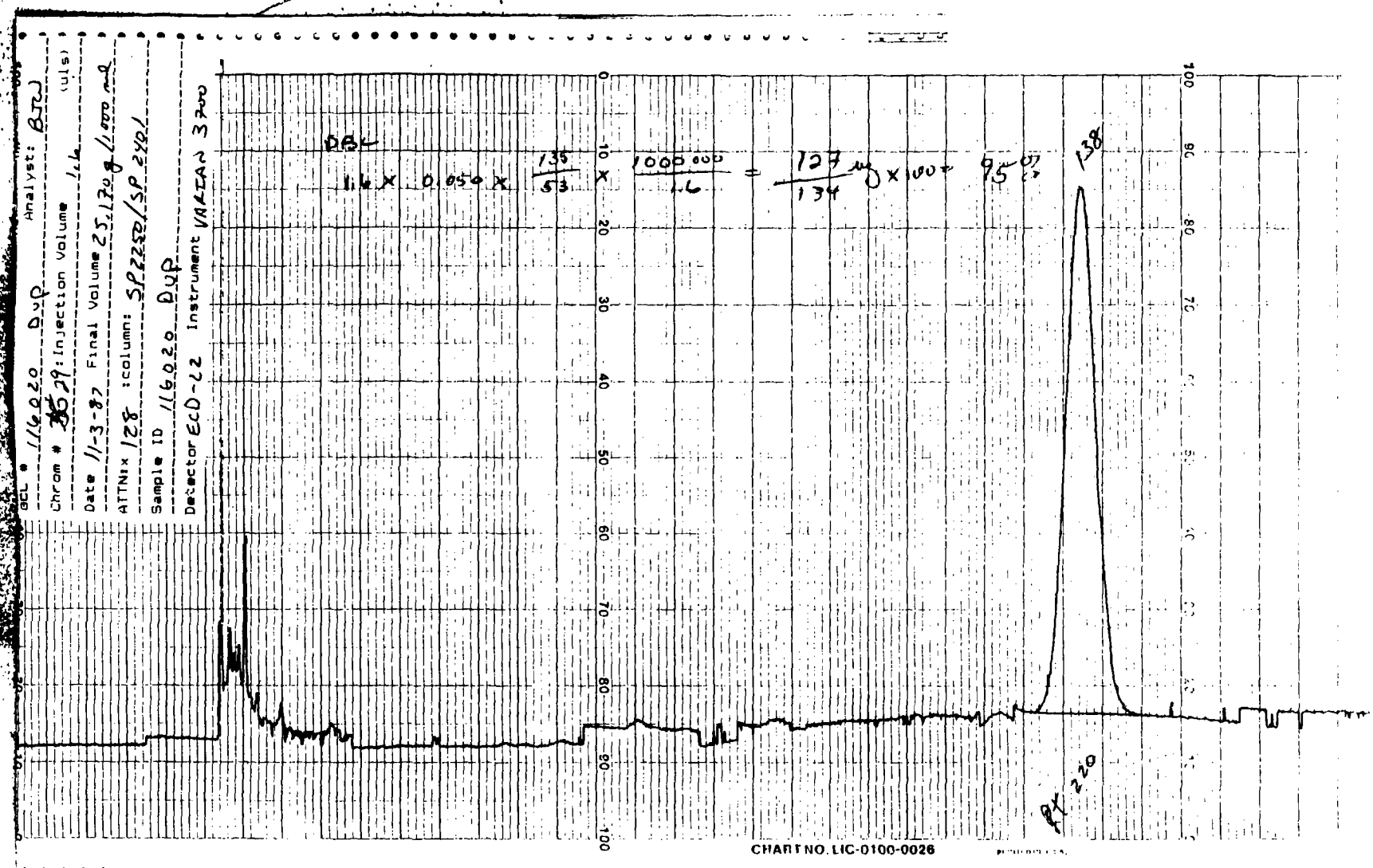
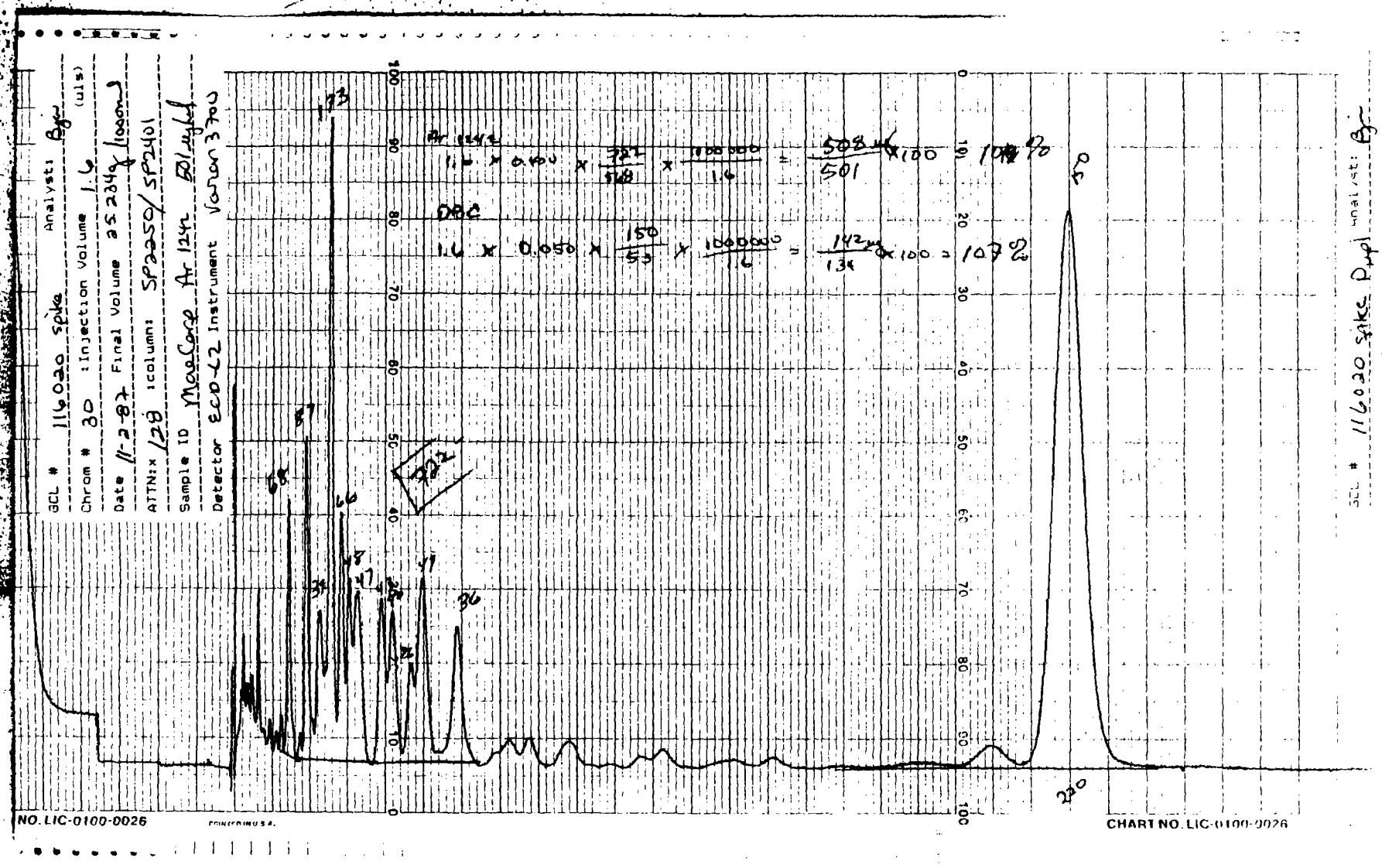


CHART NO. LIC-0100-0026

CHART NO. LIC-0100-0026


BCL # 116020 DUP
Analyst: BTJ
Chrom # 3529
Injection Volume 1.6 (uls)
Date 11-3-87
Final Volume 25,120 g/1000 ml
ATTNix 128
Column: SP2250/SP 2401
Sample ID 116020 DUP
Detector ECD-22
Instrument VARIAN 3700
DBC
1.6 x 0.050 x 135/53 x 1000000/1.6 = 127 ug/134 g x 100 = 95%
138
RX 220
CHART NO. LIC-0100-0026


GCL # 116020 Spike
Analyst: Bgu
Chrom # 30 : Injection Volume 1.6 (uls)
Date 11-2-87 Final Volume as 2.34 (loaded)
ATTN:x 128 :column: SP2250/SP2401
Sample ID MacCorp Ar 1242 Bl Hydf
Detector ECD-42 Instrument Varian 3700
Ar 1242
1.6 x 0.050 x 327/548 x 1000000/1.6 = 508 ng/L x 100 = 101%
501
DBC
1.6 x 0.050 x 150/53 x 1000000/1.6 = 142 ng/L x 100 = 107%
132
173
68
67
66
48
47
34
49
36
50
200
NO. LIC-0100-0026
CHART NO. LIC-0100-0026
GCL # 116020 Spike Dupl Analyst: Bgu

GCL # 116020 sake Dupl Analyst: BJ

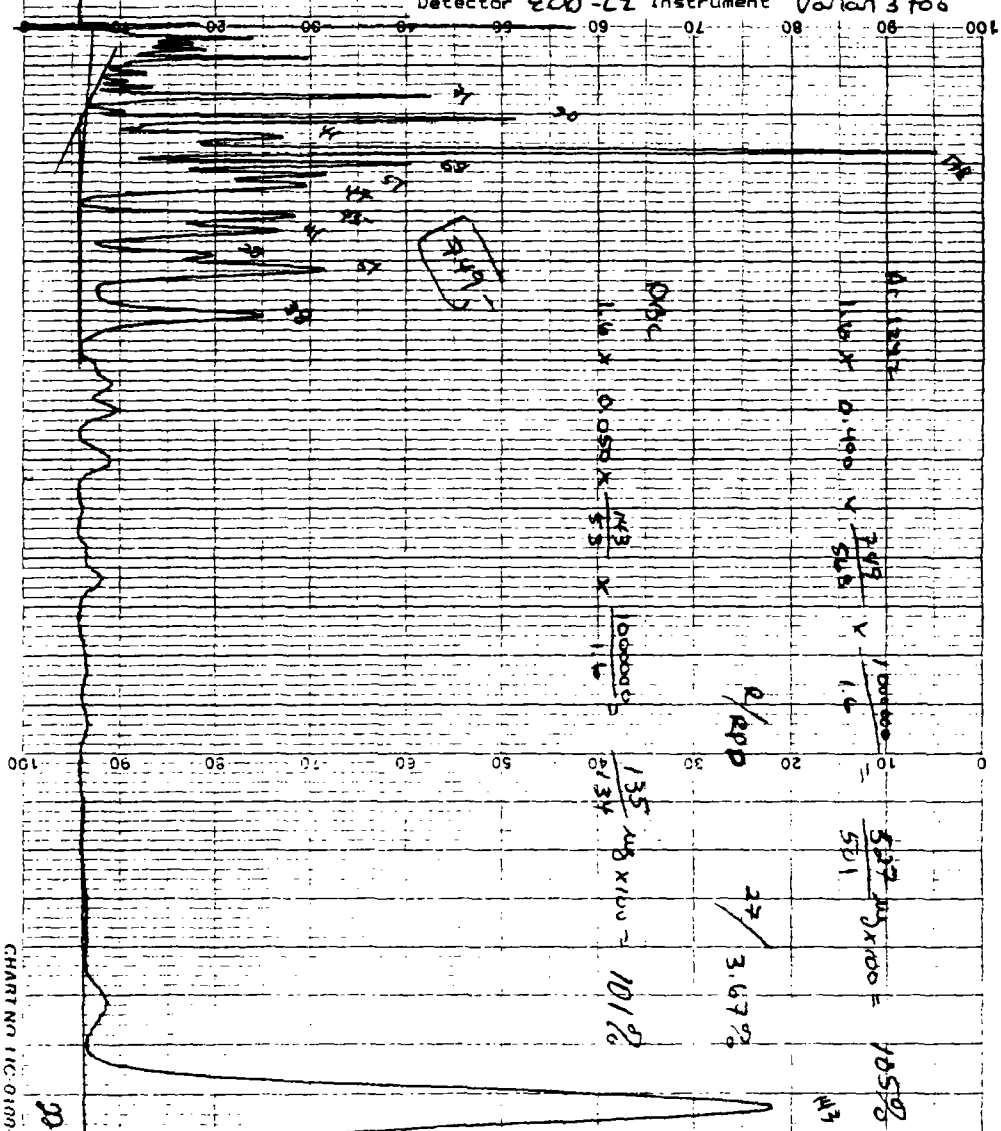
Chrom # 31 :Injection Volume 1.6 (uls)

Date 11-2-87 Final Volume 25.037g/1000ml

ATTN:x 128 :column: SP2250/SP2401

Sample ID MacCorp Ar1242 50ppbl

Detector ECD-L2 Instrument Varian 3700



GCL # 116021 Analyst: BJW

Chrom # 32 :Injection Volume 1.6 (uls)

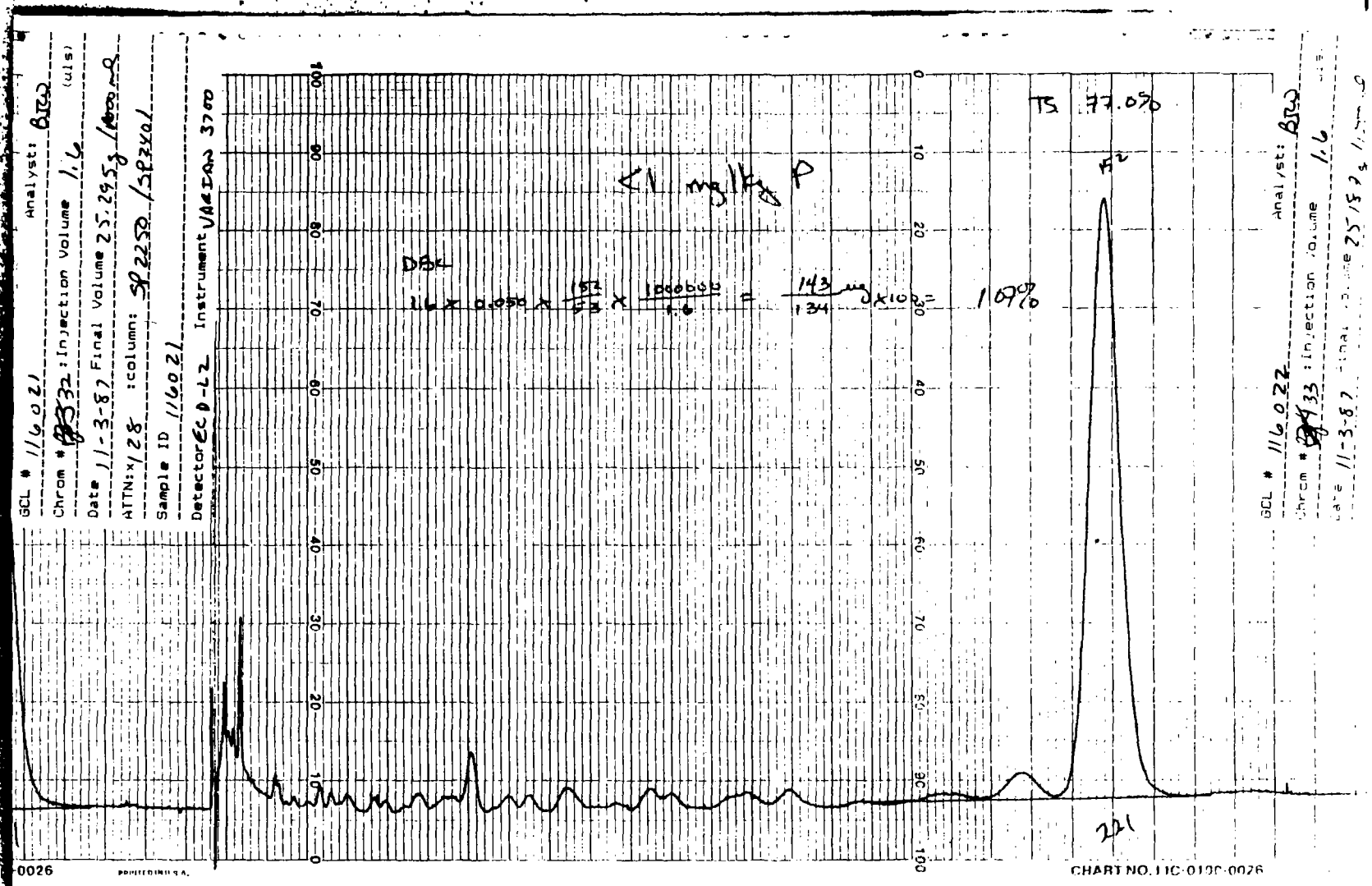
Date 11-3-87 Final Volume 25.295g/1000ml

ATTN:x 128 :column: SP2250/SP2401

Sample ID 116021

Detector ECD-L2 Instrument VARIAN 3700

CHART NO. HC-0100-0026


GCL # 116021
Analyst: BRW
Chrom # 8332 :Injection Volume 1.6 (uls)
Date 11-3-87 Final Volume 25.2953 /
ATTN: x/28 :column: SP2250 /SP2401
Sample ID 116021
Detector ECD-L2 Instrument VARIAN 3700
TS 77.0%
221
DBC
1.6 x 0.050 x 152/73 x 1000000/1.6 = 143/134 x 10 = 109%
CHART NO. 11C-0120-0026

GCL # 116022 Analyst: BRW

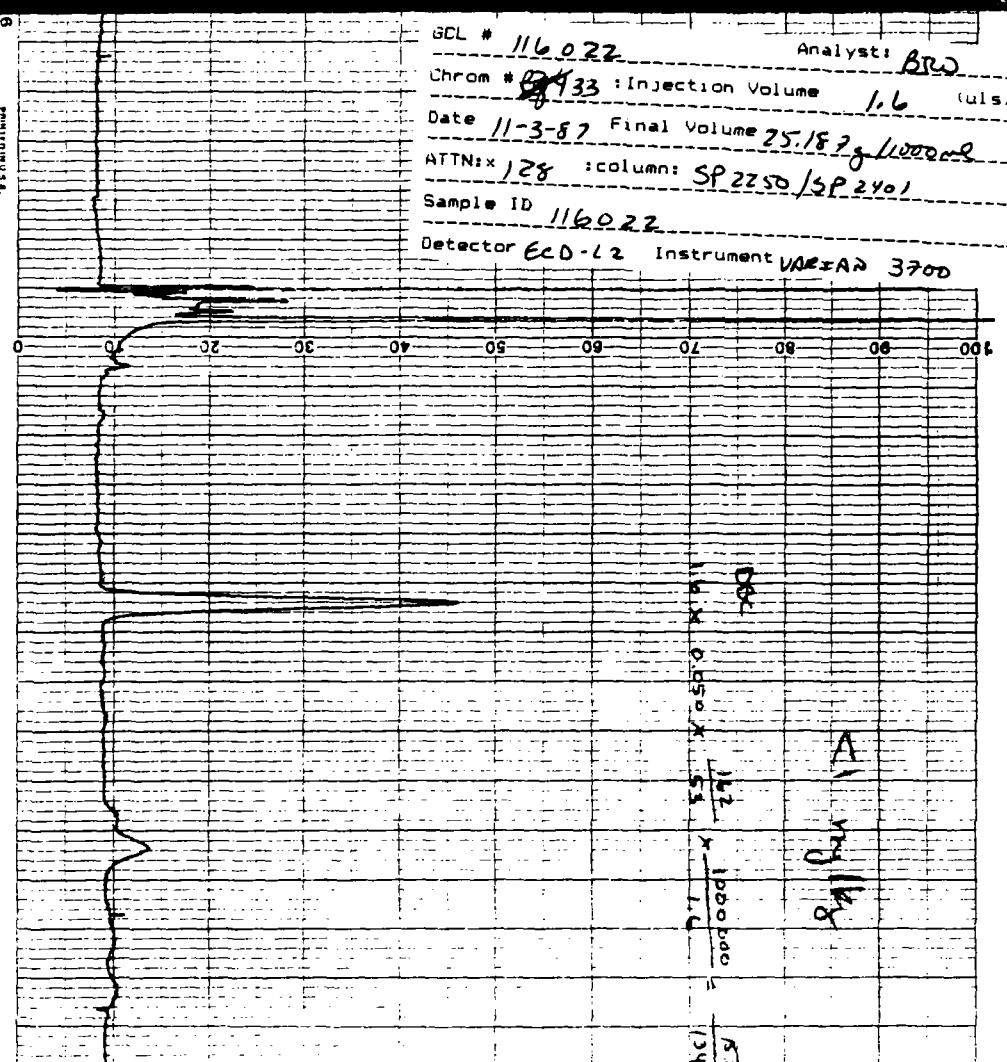
Chrom # 33 : Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 25.187 g/1000 ml

ATTN: x 128 : column: SP 2250 / SP 2401

Sample ID 116022

Detector ECD-C2 Instrument VARIAN 3700



$$\frac{\text{ng}}{\text{ml}} = \frac{\text{ng}}{\text{ml}} \times \frac{1000}{\text{ml}} \times \frac{25.187}{\text{g}} \times 0.050 \times 1.6$$

$$\frac{\text{ng}}{\text{g}} = \frac{\text{ng}}{\text{ml}} \times 100 =$$

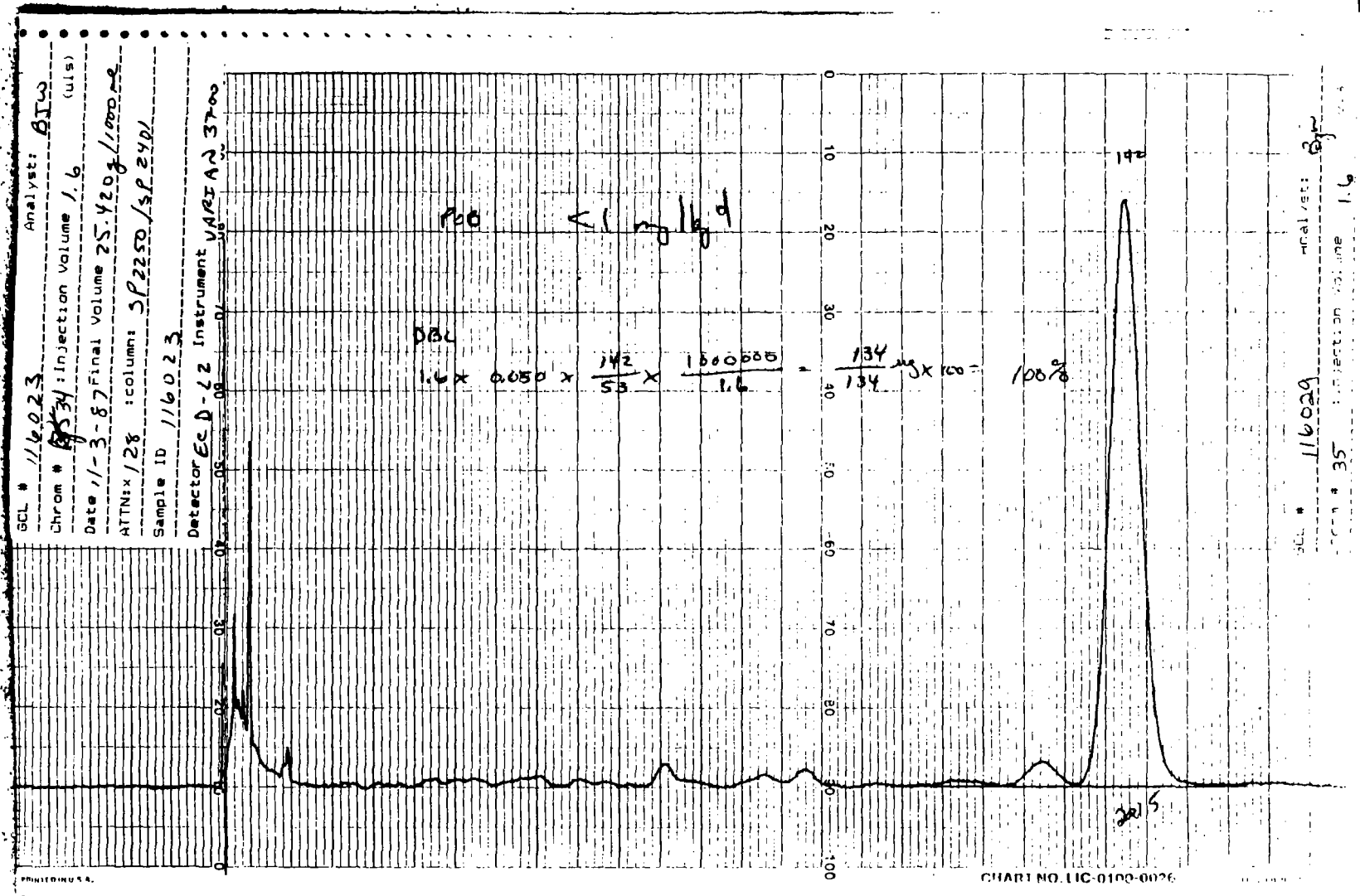
1179

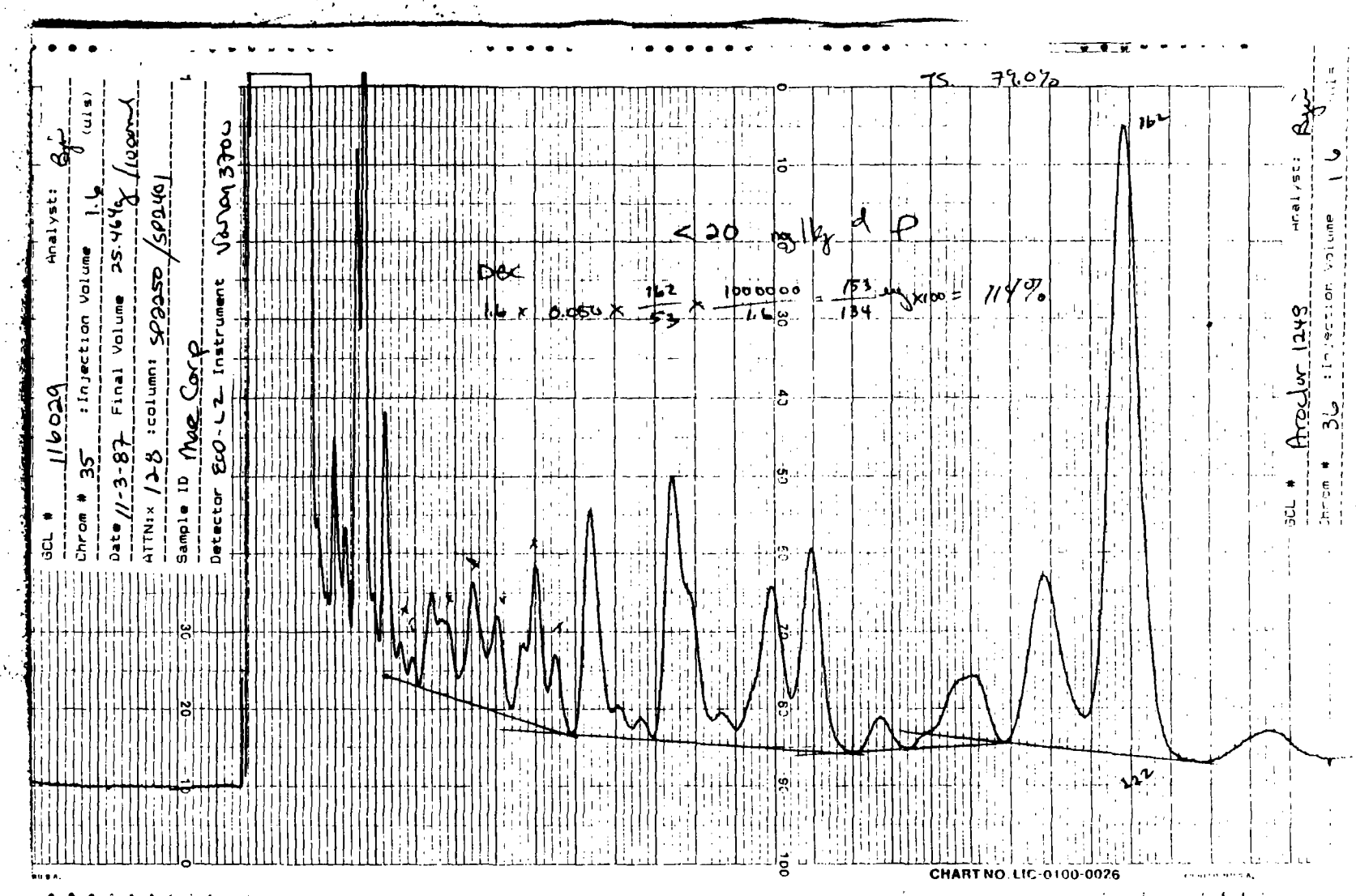
GCL # 116023 Analyst: BRW

Chrom # 34 : Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 25.420 g/1000 ml

ATTN: 128 : column: SP 2250 / SP 2401


GCL # 116023
Chrom # BTX34
Analyst: BTW
Injection Volume 1.6 (uls)
Date 1-3-87
Final Volume 25.420 g/1000 ml
ATTNx 128
column: SP2250/SP2401
Sample ID 116023
Detector ECD-L2
Instrument VARIAN 3700
Pad Aligned
DBC
1.6 x 0.050 x 142/53 x 1000000/1.6 = 134/134 mg x 100 = 100%
142
215
CHART NO. LIC-0100-0026
GCL # 116029
Analyst: BJ
Injection Volume 1.6


GCL # 116029
Analyst:
Chrom # 35 : Injection Volume 1.6 (uls)
Date 11-3-87 Final Volume 25.469g
ATTN:x 128 :column: SP2250 /SP2401
Sample ID Mae Corp
Detector ECD-L2 Instrument Varian 3700
TS. 79.0%
162
122
<20 ppb d P
DEC
1.6 x 0.050 x 162/53 x 1000000/1.6 = 153/134 x100 = 114%
GCL # Aroclor 1248
Chrom # 36 : Injection Volume 1.6
CHART NO. LIC-0100-0026

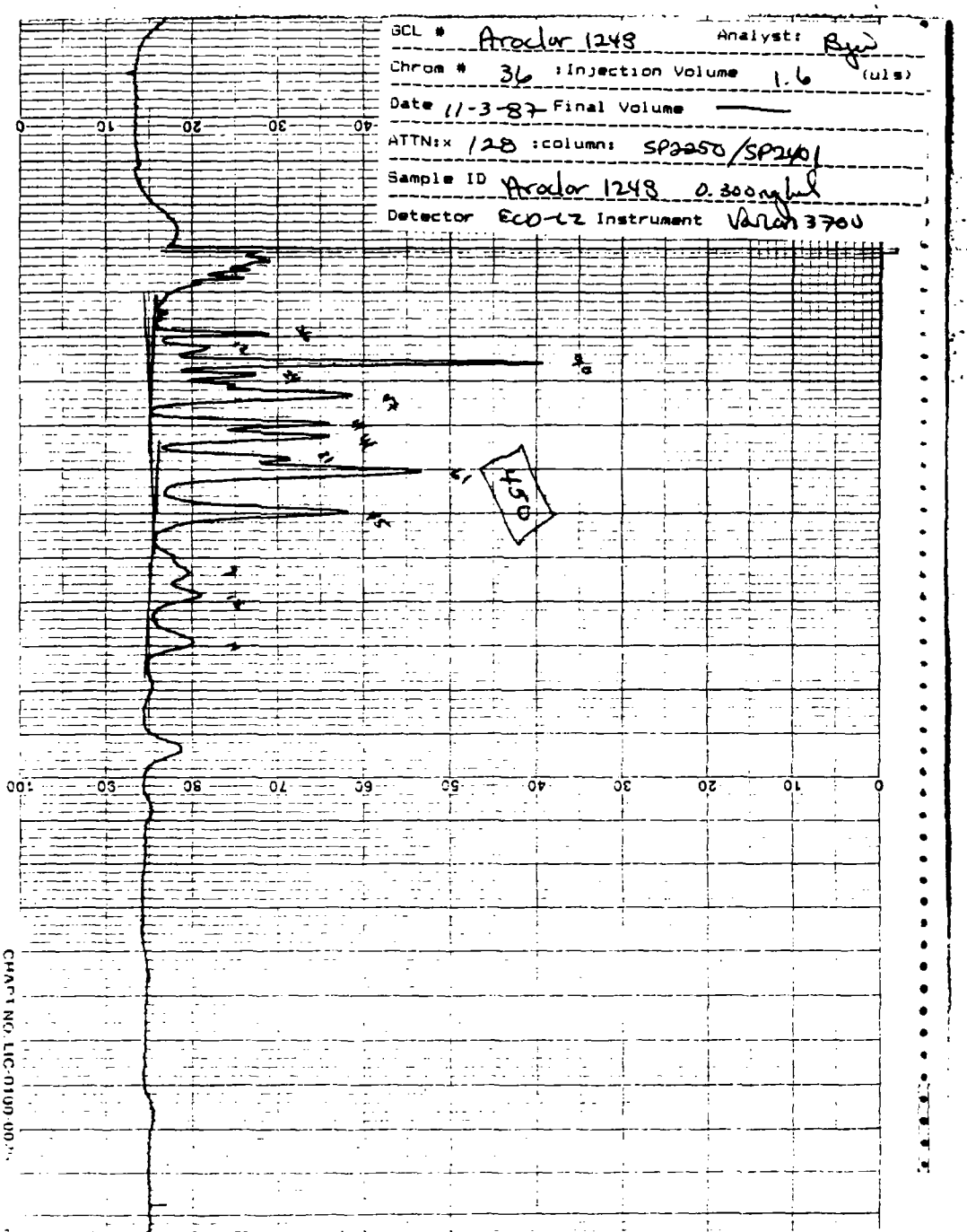


CHART NO. LIC-0109-00

GCL # 116030 Analyst: Byi

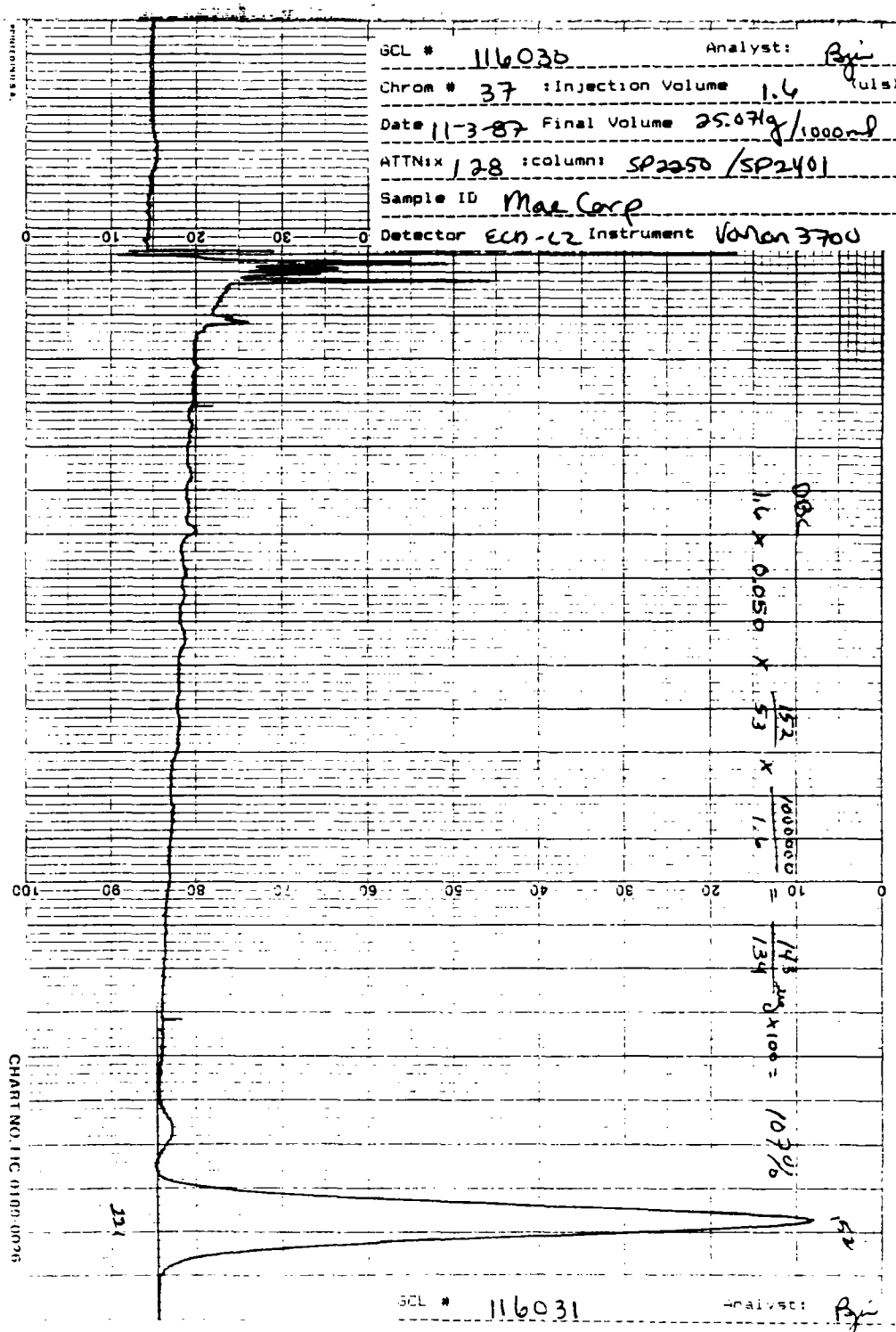
Chrom # 37 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 25.07g/1000ml

ATTN:x 128 :column: SP2250 /SP2401

Sample ID Mae Corp

Detector ECD-C2 Instrument Varian 3700



$$\frac{1.6 \times 0.059 \times 152}{53 \times 1.6} \times \frac{1000000}{1.6} = \frac{143\ \mu g}{134\ \mu g} \times 100 = 107\%$$

GCL # 116031 Analyst: Byi

GCL # 116031 Analyst: Bjr

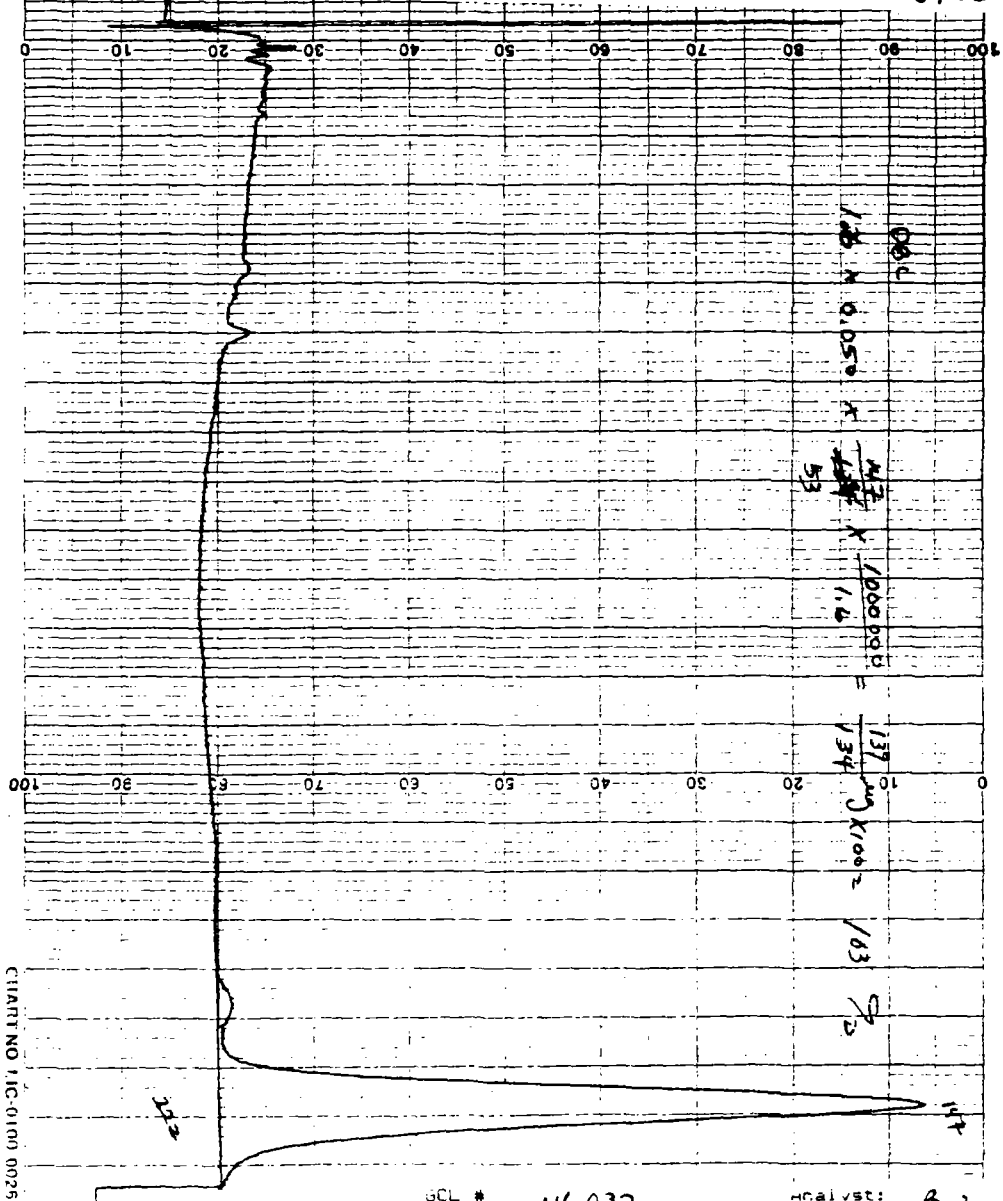
Chrom # 38 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 24.957g/1000ml

ATTN:x 128 :column: SP2250/SP2401

Sample ID Mae Corp

Detector ECD-L2 Instrument Varian 3700



GCL # 116032 Analyst: Bjr

Chrom # 39 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 25.153g/1000ml

ATTN: 128 :column: SP2250/SP2401

Sample ID Mae Corp

GCL # 116032 Analyst: BJ

Chrom # 39 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 25.153g/1000ml

ATTN:x 128 :column: SP3250/SP2401

Sample ID Max Comp

Detector ECD-L2 Instrument Varian 3700

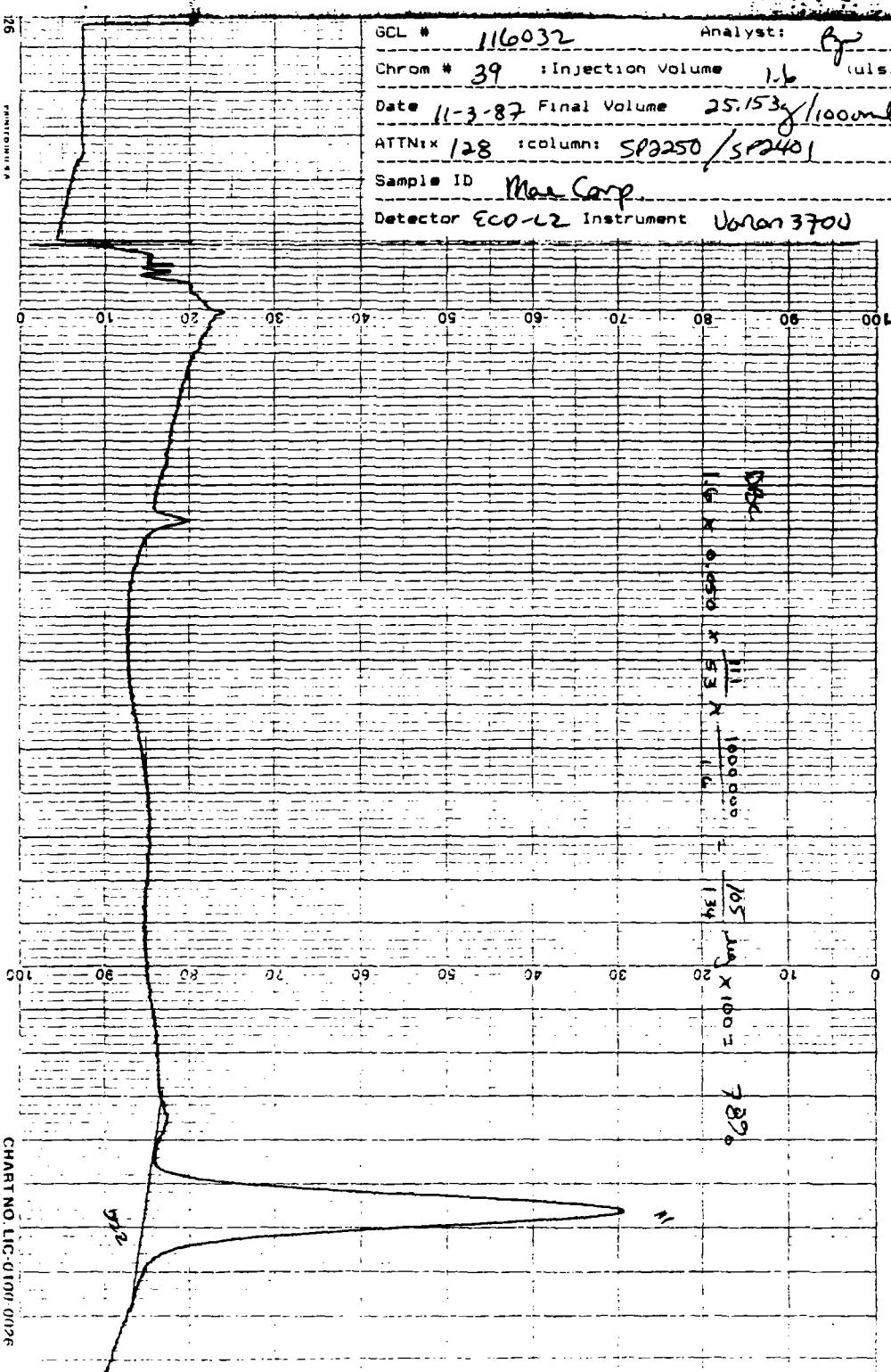


CHART NO. LIC-0100/0126

GCL # 116033 Analyst: BJ

Chrom # 40 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 24.980g/1000ml

ATTN: 128 :column: SP3250/SP2401

GCL # 116033 Analyst: Byi

Chrom # 40 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 24.980g /1000ml

ATTN:x 128 :column: SP2250 /SP2401

Sample ID Mac Corp

Detector ECD-L2 Instrument Varian 3700

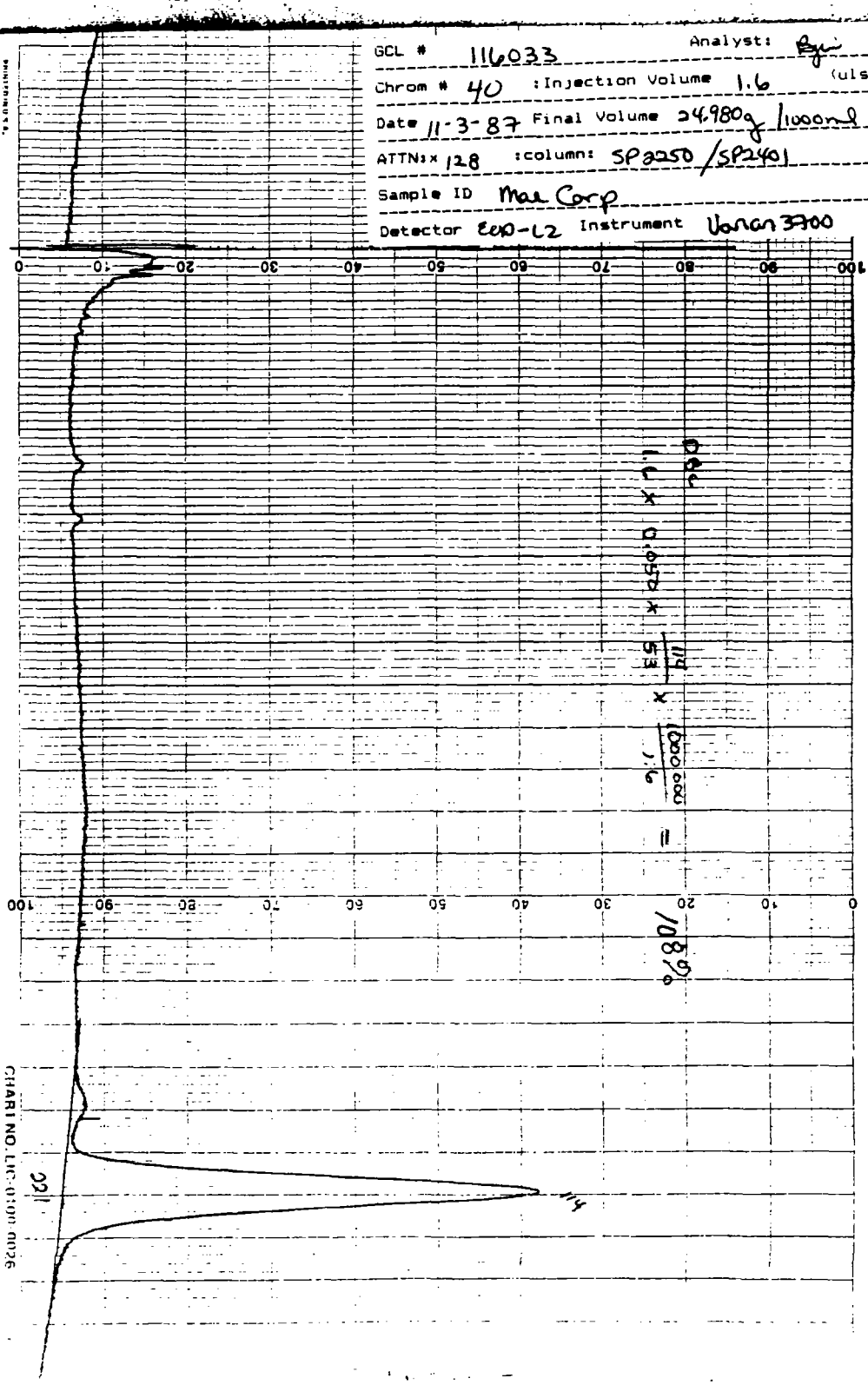
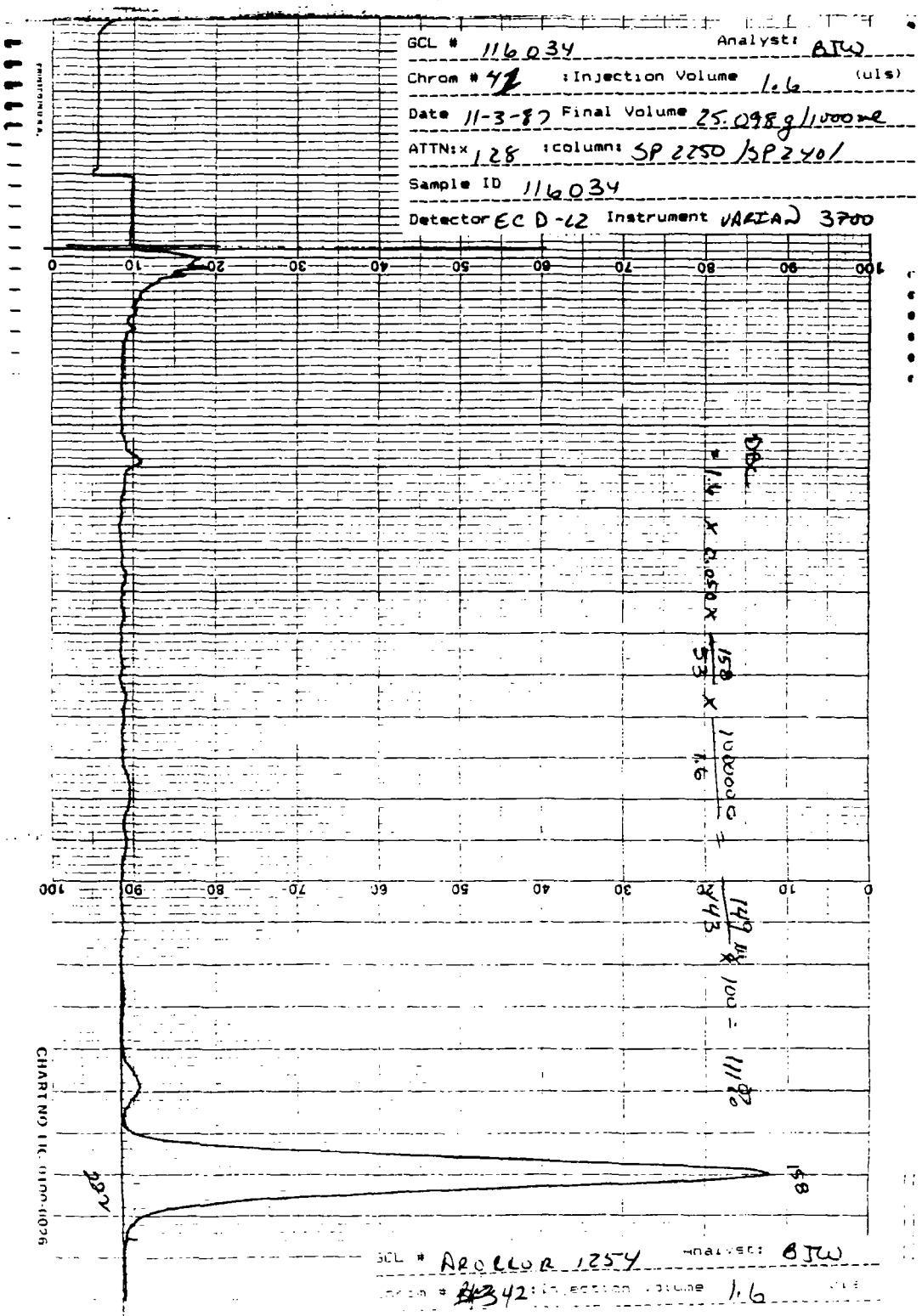


CHART NO. LNC-0100-0026


GCL # 116034
Analyst: BJW
Chrom # 42
:Injection Volume 1.6 (uls)
Date 11-3-87
Final Volume 25.098g/1000ml
ATTN:x 128
:column: SP 2250 /SP 2401
Sample ID 116034
Detector EC D-62
Instrument VARIAN 3700
GCL # AROCLOR 1254
Analyst: BJW
Chrom # 42
:Injection Volume 1.6
CHART NO. EC 0100-0006

GCL # AROCLOR 1254 Analyst: BJW

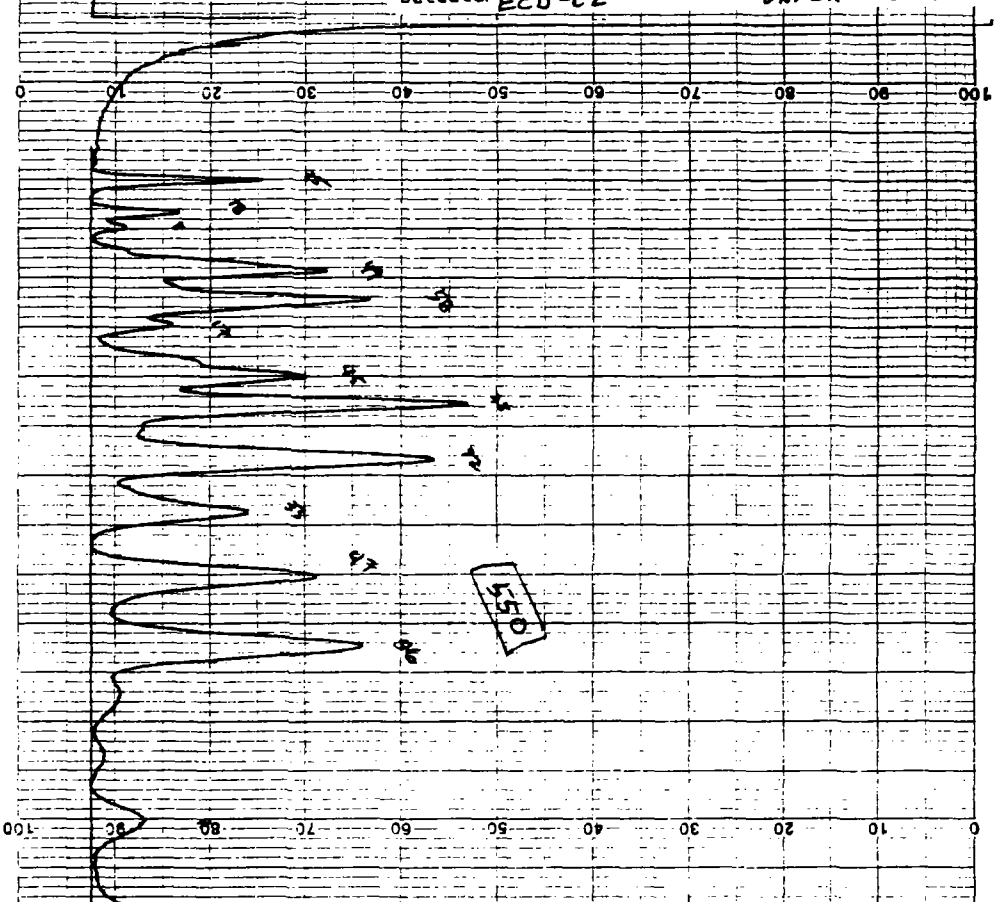
Chrom # 342 : Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume ←

ATTN: x 128 : column: SP2250 / SP 2401

Sample ID AROCLOR 1254 0.500 mg/ml

Detector ECD-L2 Instrument VARIAN 3700



GCL # AROCLOR 1248 Analyst: BJW

Chrom # 343 : Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume ——

ATTN: 128 : column: SP2250 / SP 2401

CHART NO. 11C-0100-0026

GCL # AROCLOR 1242 Analyst: BJW

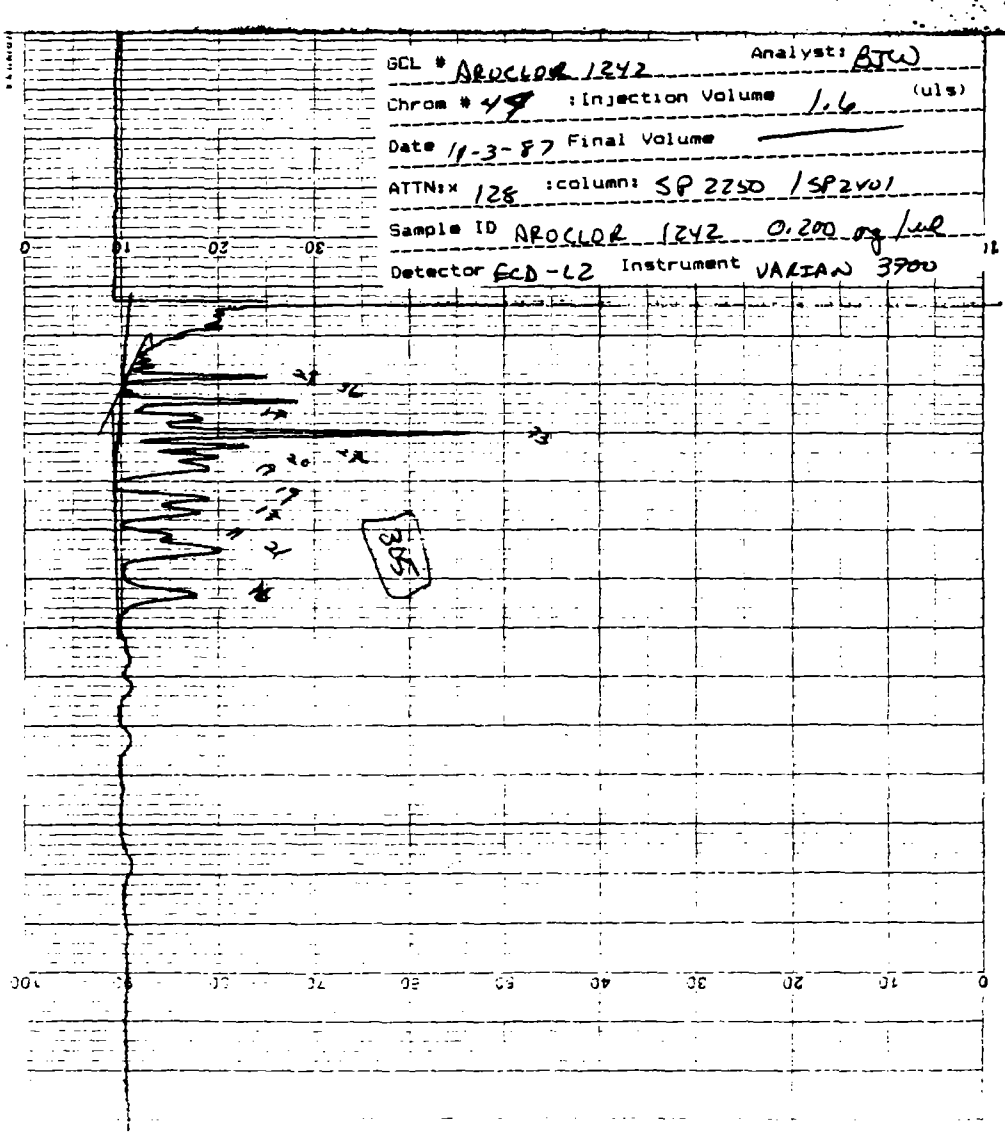
Chrom # 49 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume —

ATTN:x 128 :column: SP 2250 / SP2401

Sample ID AROCLOR 1242 0.200 ng/ul

Detector ECD-L2 Instrument VARIAN 3700



GCL # 116024 spike Hg Analyst: Byn

Chrom # 18 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 3.0263g /100ml

ATTN:x 128 :column: SP2250/SP2401

Sample ID Mae Corp 50.1ug/242

Detector ECD-L2 Instrument Varian 3700

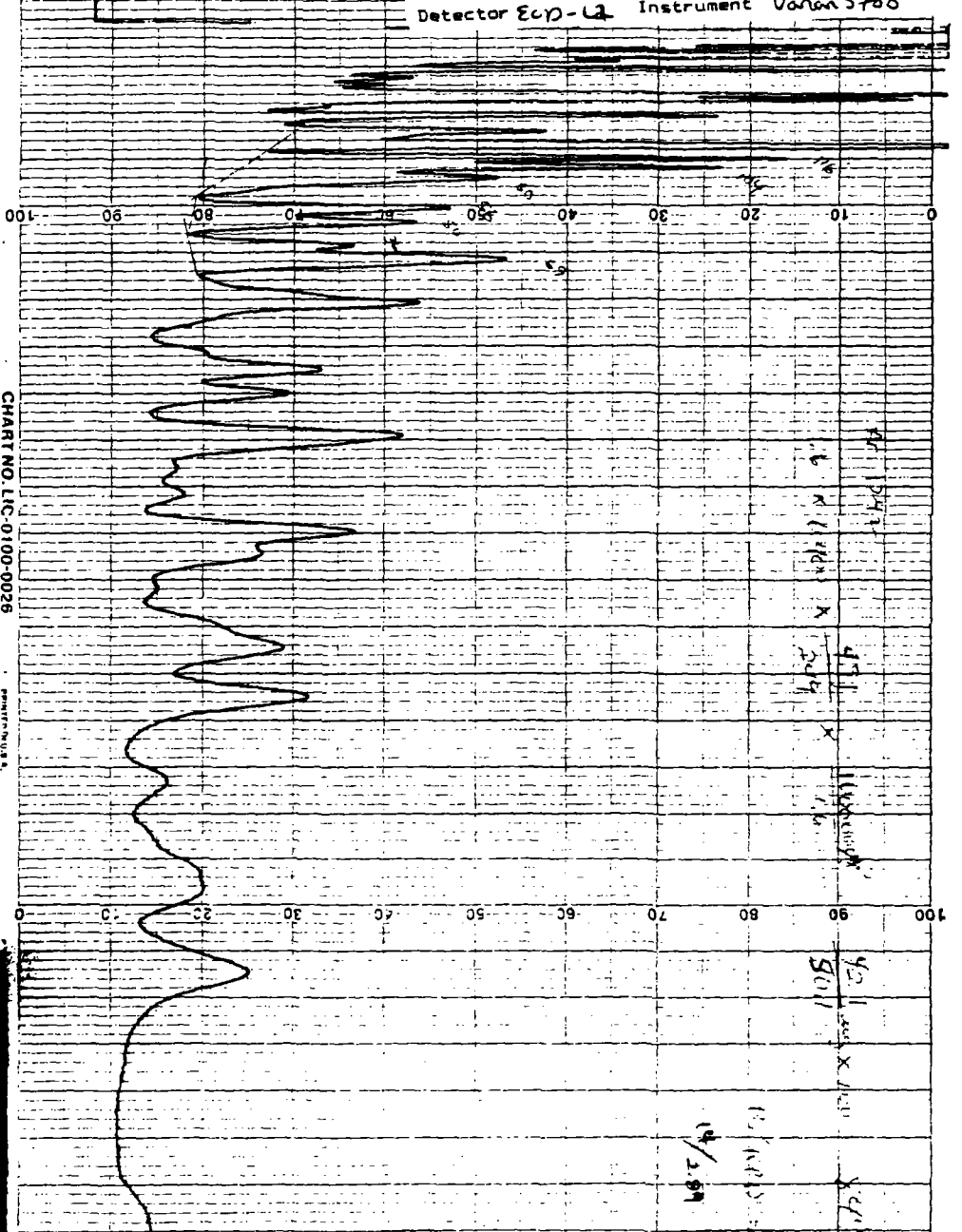


CHART NO. LIC-0100-0026

GCL # 116024 spike Dupl Hg Analyst: Byn

Chrom # 19 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 3.0218g /100ml

ATTN:x 128 :column: SP2250/SP2401

Sample ID Mae Corp 50.1ug/ml 1242

Detector ECD-L2 Instrument Varian 3700

GCL # ARO CLOR 1248 Analyst: BRW

Chrom # 8743 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume ——

ATTN:x 128 :column: SP2250 / SP2401

Sample ID ARDCLOR 1248 0.300 ug/ml

Detector ECD-L2 Instrument VARIAN 3900

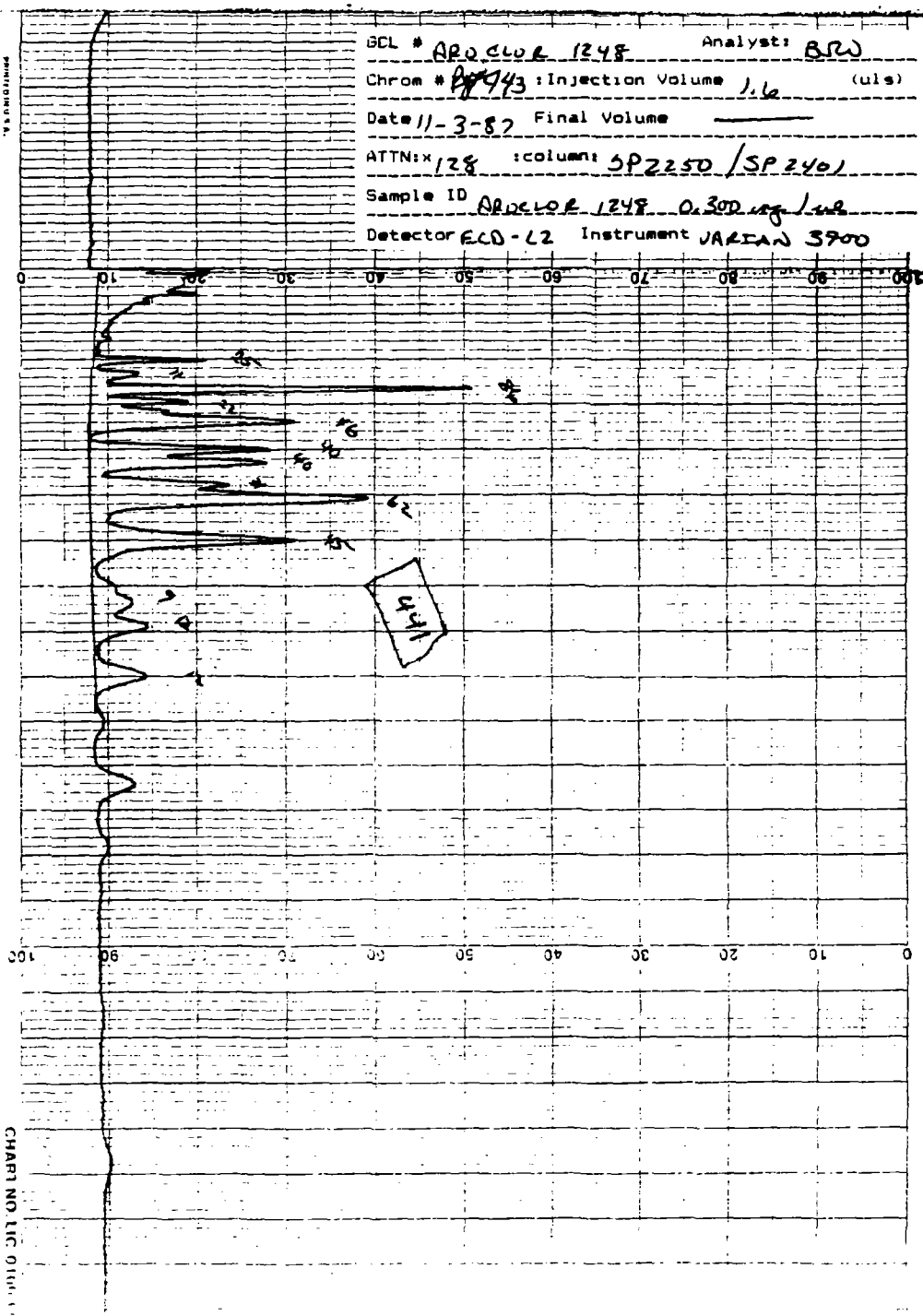


CHART NO LIC 010

GCL #: 116024 spike Dupl Hg Analyst: By

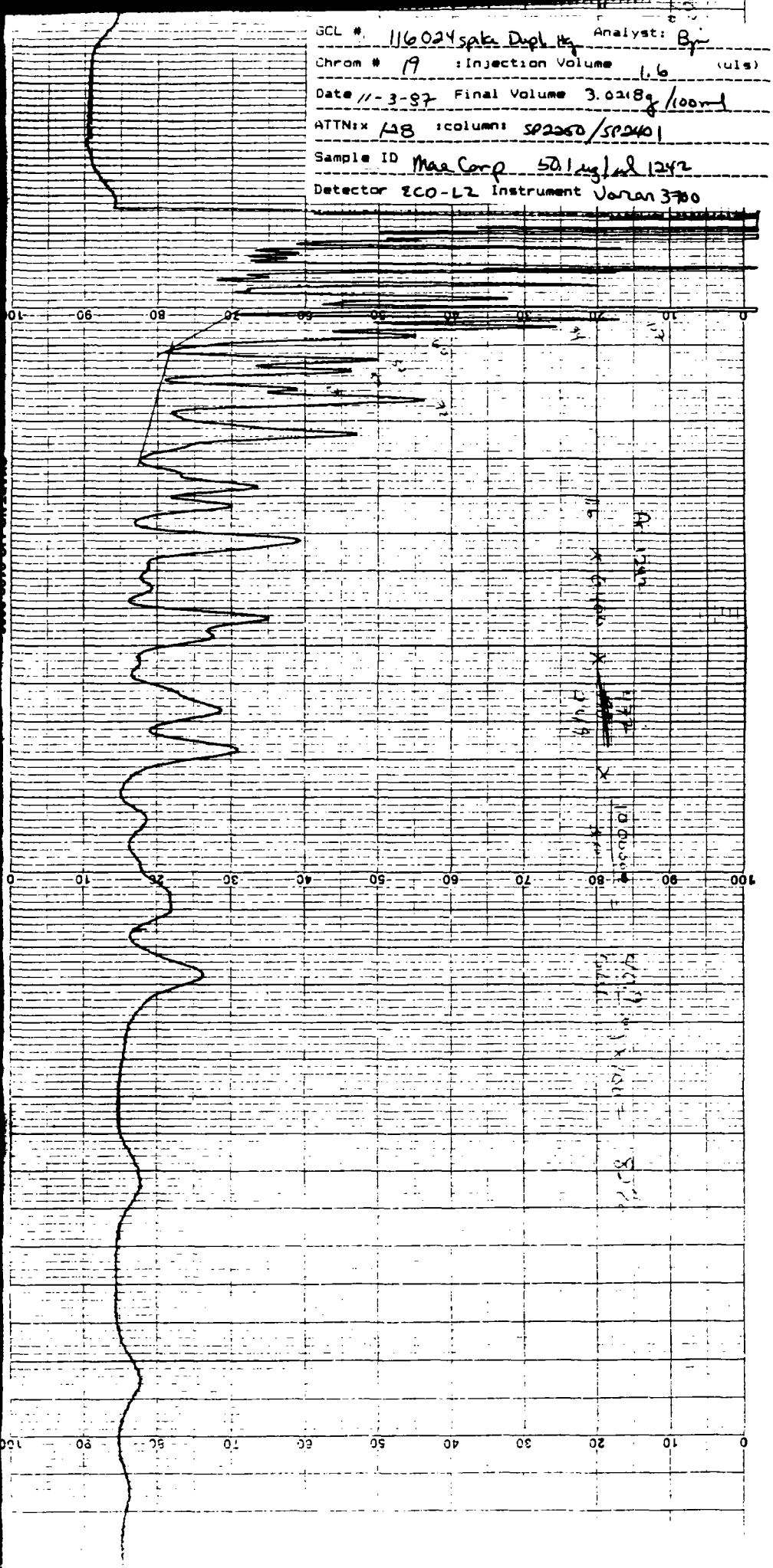
Chrom # 19 :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 3.0218g/100ml

ATTN:x 48 :column: SP2560/SP2401

Sample ID Mae Corp 50.1 ug/ml 1242

Detector ECD-L2 Instrument Varian 3700



GCL # 116020 Dupl Analyst: Byr

Chrom # :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 1000 ml

ATTN:x 128 :column: SP2250/SP2401

Sample ID Mae Corp

Detector ECD-L2 Instrument Varian 3700

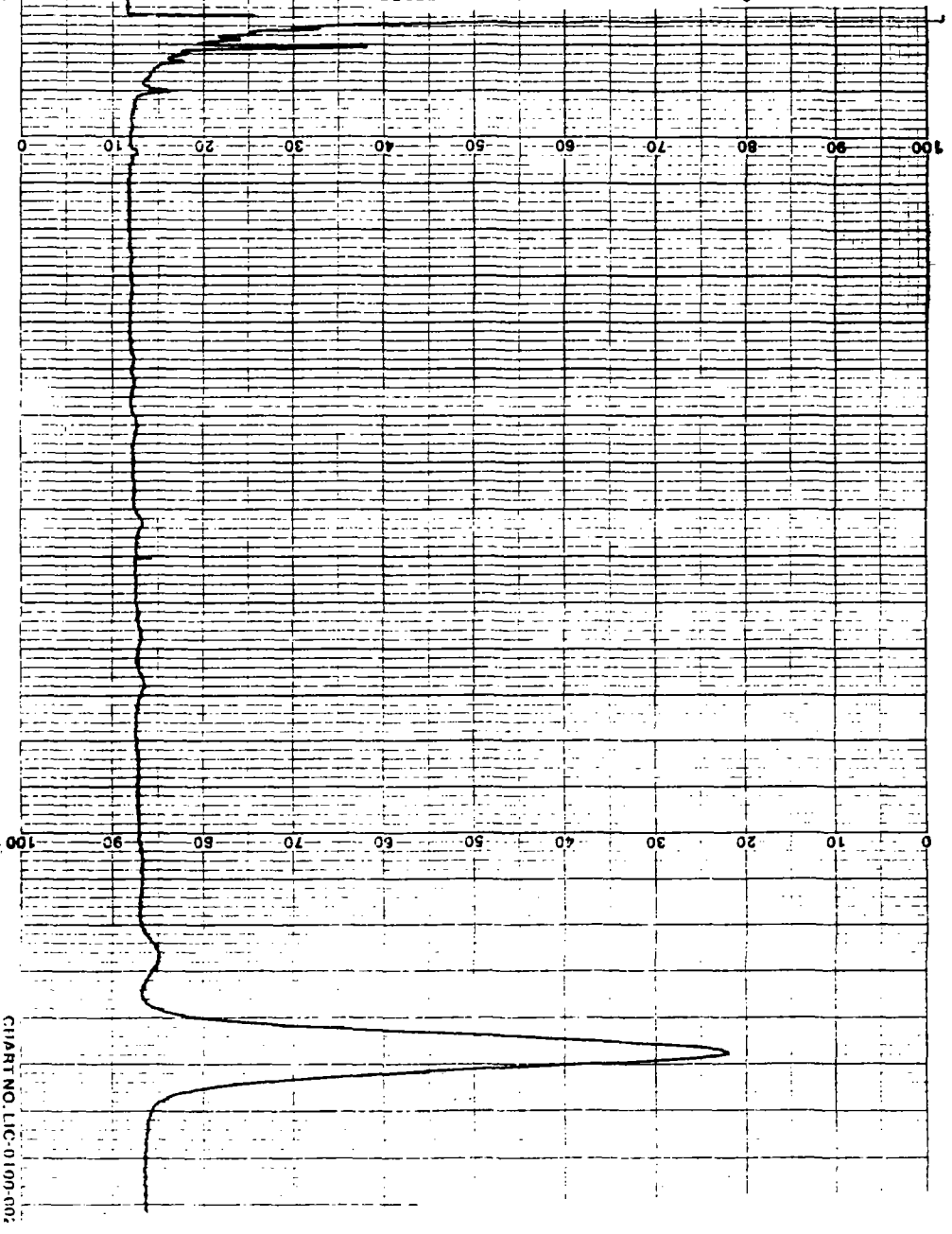


CHART NO. LIC-0100-002

00-0028

GCL # Method Blank Analyst: Byw

Chrom # :Injection Volume 1.6 (uls)

Date 11-3-87 Final Volume 1000ml

ATTN:x 128 :column: SP2250 / SP2406

Sample ID Mae Corp DBC 501 mg/kg

Detector ECD-L2 Instrument Varian 3700

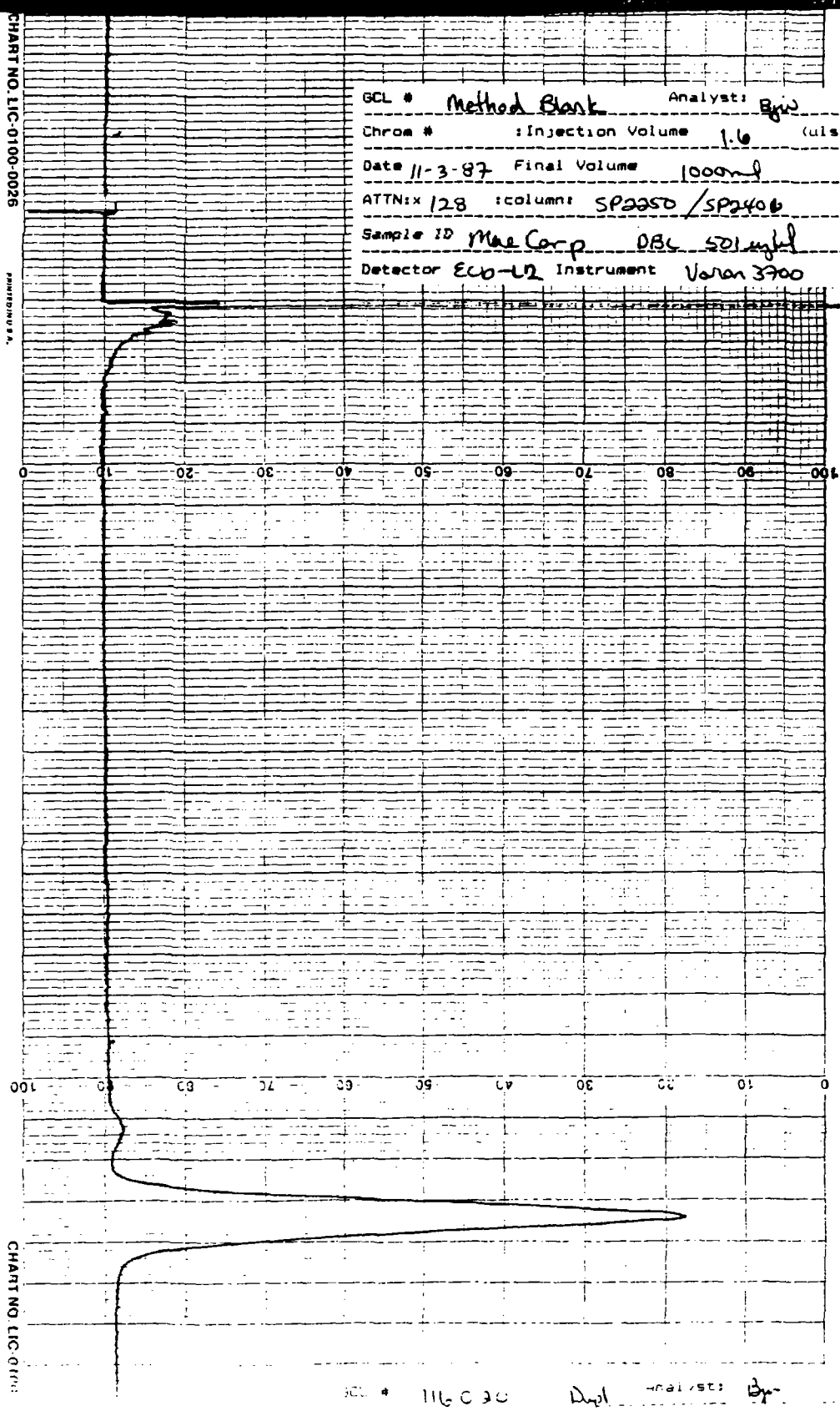


CHART NO. LIC-0100-0026

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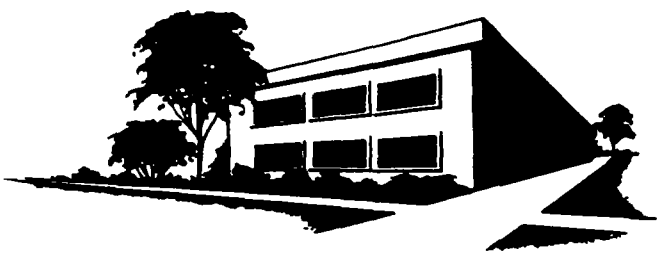
CHART NO. LIC-0100-

GCL # 116 C 30 Dwl Analyst: Byw



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29079 FORD ROAD
GARDEN CITY, MICHIGAN 48135
PHONE: (313) 422-7474

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Laboratories, Inc.

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05-19-88

SAMPLE NO: 13160
Page 1

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W11 South east corner ABL 7053

TAKEN RECEIVED
05-16-88

Aluminum	5.896	ppm
Antimony	<0.15	ppm
Arsenic	<0.15	ppm
Barium	0.657	ppm
Beryllium	<0.002	ppm
Cadmium	<0.01	ppm
Calcium	686.4	ppm
Chromium	0.025	ppm
Cobalt	<0.02	ppm
Copper	0.030	ppm
Iron	11.03	ppm
Lead	<0.2	ppm
Magnesium	300.3	ppm
Manganese	1.845	ppm
Mercury	<0.2	ppm
Nickel	0.161	ppm
Selenium	<0.2	ppm
Silver	<0.1	ppm

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Director of Laboratories

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UNITED STATES NUCLEAR REGULATORY COMMISSION
AMERICAN COUNCIL OF INDEPENDENT LABORATORIES
INSTITUTE OF FOOD TECHNOLOGISTS

FELLOW — AMERICAN INSTITUTE OF CHEMISTS
DIPLOMAT — AMERICAN BOARD OF BIOANALYSTS
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AMERICAN SOCIETY FOR MICROBIOLOGY
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05-19-88

SAMPLE NO: 13160
Page 2

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W11 South east corner ABL 7053

TAKEN RECEIVED
05-16-88

Thallium	<0.5	ppm
Vandadium	<0.05	ppm
Zinc	0.249	ppm
Dissolved Oxygen	1.30	ppm
Nitrogen, Ammonia	8.82	ppm
Oil & Grease	76.5	ppm
pH	7.05	units
Phenols	0.07	ppm
Potassium	<10	ppm
Sodium	<10	ppm
Solids, Suspended	1,900	ppm
Solids, Diss.	8,970	ppm
Surfactants, ABS, LAS	24	ppm
PURGEABLE HALOCARBONS-601	.	
.	.	
1,2-Dichlorbenzene	<10	ppb
1,3-Dichlorobenzene	<10	ppb

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05-19-88

SAMPLE NO: 13160
Page 3

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W11 South east corner ABL 7053

TAKEN RECEIVED
05-16-88

1,4-Dichlorobenzene	<10	ppb
Bromoform	<10	ppb
Carbon Tetrachloride	<10	ppb
Clorobenzene	<10	ppb
Chloroethane	<10	ppb
2-Chloroethylvinyl Ether	<10	ppb
Chloroform	<10	ppb
Dichlorodiflouromethane	<10	ppb
1,1-Dichloroethane	<10	ppb
1,2-Dichloroethane	<10	ppb
1,1-Dichloroethylene	<10	ppb
1,2-Dichloropropane	<10	ppb
Methylene Chloride	<10	ppb
1,1,2,2 Tetrachloroethane	<10	ppb
Tetrachloroethene	<10	ppb
1,1,1-Trichloroethane	<10	ppb
1,1,2-Trichloroethane	<10	ppb
Trichloroethene	<10	ppb

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05-19-88

SAMPLE NO: 13160
Page 4

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W11 South east corner ABL 7053

TAKEN RECEIVED
05-16-88

Trichlorofluoromethane	<10	ppb
Vinyl Chloride	<10	ppb
Bromodichloromethane	<10	ppb
Bromomethane	<10	ppb
Chloromethane	<10	ppb
Dibromochloromethane	<10	ppb
trans-1,2-Dichloroethene	<10	ppb
cis-1,3-Dichloropropene	<10	ppb
trans-1,3-Dichloropropene	<10	ppb
.	.	
PURGEABLE AROMATICS - 602	.	
1,2,-Dichlorobenzene	<10	ppb
1,3,-Dichlorobenzene	<10	ppb
1,4,-Dichlorobenzene	<10	ppb
Benzene	<10	ppb
Chlorobenzene	<10	ppb
Ethylbenzene	<10	ppb
Toluene	22.6	ppb

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05-19-88

SAMPLE NO: 13160
Page 5

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W11 South east corner ABL 7053

TAKEN RECEIVED
05-16-88

Styrene	<10	ppb
Xylene	<10	ppb
PCB Oil Analysis	<0.01	ppm

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05-19-88

SAMPLE NO: 13161
Page 6

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W12 South west corner

TAKEN RECEIVED
05-16-88

Aluminum	4.510	ppm
Antimony	<0.15	ppm
Arsenic	<0.15	ppm
Barium	0.854	ppm
Beryllium	<0.002	ppm
Cadmium	<0.01	ppm
Calcium	689.5	ppm
Chromium	0.024	ppm
Cobalt	<0.02	ppm
Copper	0.063	ppm
Iron	7.123	ppm
Lead	<0.2	ppm
Magnesium	242.4	ppm
Manganese	1.381	ppm
Mercury	<0.2	ppm
Nickel	0.227	ppm
Selenium	<0.2	ppm
Silver	<0.1	ppm

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SAMPLE NO: 13161

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W12 South west corner

TAKEN RECEIVED
05-16-88

Thallium	<0.5	ppm
Vandadium	<0.05	ppm
Zinc	0.260	ppm
Dissolved Oxygen	0.80	ppm
Nitrogen, Ammonia	7.84	ppm
Oil & Grease	92.5	ppm
pH	7.29	units
Phenols	0.08	ppm
Potassium	<10	ppm
Sodium	<10	ppm
Solids, Suspended	360	ppm
Solids, Diss.	8,360	ppm
Surfactants, ABS, LAS	26	ppm
PURGEABLE HALOCARBONS-601	.	
.	.	
1,2-Dichlorbenzene	<10	ppb
1,3-Dichlorobenzene	<10	ppb

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05-19-88

SAMPLE NO: 13161
Page 8

MAECORP
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FREDDIE WALKER

SAMPLE DESCRIPTION: W12 South west corner

TAKEN RECEIVED
05-16-88

1,4-Dichlorobenzene	<10	ppb
Bromoform	<10	ppb
Carbon Tetrachloride	<10	ppb
Clorobenzene	<10	ppb
Chloroethane	<10	ppb
2-Chloroethylvinyl Ether	<10	ppb
Chloroform	<10	ppb
Dichlorodiflouromethane	<10	ppb
1,1-Dichloroethane	<10	ppb
1,2-Dichloroethane	<10	ppb
1,1-Dichloroethylene	<10	ppb
1,2-Dichloropropane	<10	ppb
Methylene Chloride	<10	ppb
1,1,2,2 Tetrachloroethane	<10	ppb
Tetrachloroethene	<10	ppb
1,1,1-Trichloroethane	<10	ppb
1,1,2-Trichloroethane	<10	ppb
Trichloroethene	<10	ppb

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17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W12 South west corner

TAKEN RECEIVED
05-16-88

Trichlorofluoromethane	<10	ppb
Vinyl Chloride	<10	ppb
Bromodichloromethane	<10	ppb
Bromomethane	<10	ppb
Chloromethane	<10	ppb
Dibromochloromethane	<10	ppb
trans-1,2-Dichloroethene	<10	ppb
cis-1,3-Dichloropropene	<10	ppb
trans-1,3-Dichloropropene	<10	ppb
.	.	
PURGEABLE AROMATICS - 602	.	
1,2,-Dichlorobenzene	<10	ppb
1,3,-Dichlorobenzene	<10	ppb
1,4,-Dichlorobenzene	<10	ppb
Benzene	<10	ppb
Chlorobenzene	<10	ppb
Ethylbenzene	<10	ppb
Toluene	34.3	ppb

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05-19-88

SAMPLE NO: 13161
Page 10

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: W12 South west corner

TAKEN

RECEIVED
05-16-88

Styrene	<10	ppb
Xylene	<10	ppb
PCB Oil Analysis	<0.01	ppm

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ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS

DATE: May17, 1988

PRECISION & ACCURACY CONTROL DATA

PARAMETERS	SPIKE VALUE	RECOVERED VALUE	% RECOVERY
Arsenic	20.0	19.69	98.1
Barium	10.0	9.912	99.1
Cadmium	10.0	10.17	101.8
Copper	10.0	9.634	96.31
Chromium	10.0	10.43	104.3
Lead	10.0	10.23	102.3
Mercury	20.0	19.82	99.1
Selenium	20.0	19.88	99.4
Silver	10.0	20.37	101.9
Zinc	10.0	10.19	101.9
Nickel	10.0	10.06	100.6

COMPANY NAME: Maecorp

SAMPLE NUMBER: 13160-61

SAMPLE ID: W11 & W 12

DATE: 5-17-88

PRECISION & ACCURACY CONTROL DATA

#	PARAMETER	RT. TIME	SPIKE VALUE	RECOVERED VALUE	% RECOVERY
1	Methanol	1.71	10,000	10,250	102.50
2	Methylene chloride	5.85	10,000	10,100	101.00
3	Acetone	7.66	2,000	2,032	101.6
4	Trichloro Fluoromethane	8.20	2,000	2,074	103.7
5	Ethyl Ether	9.90	2,000	2,138	106.9
6	Carbon Tetrachloride	11.78	2,000	2,980	99.0
7	Ethyl Acetate	12.86	2,000	2,072	103.6
8	Butyl Alcohol	13.70	2,000	2,034	101.7
9	Pyridine	15.64	2,000	2,086	104.3
10	Trichloroethylene	16.44	2,000	2,046	102.3
11	Cyclohexanone	20.90	2,000	2,914	95.7
12	Methyl Isobutyl Ketone	21.03	2,000	2,054	102.7
13	Tetrachloroethylene	22.91	2,000	1,940	97.0
14	Toluene	24.06	2,000	2,956	97.80
15	Chlorobenzene	25.40	2,000	2,028	101.4
16	Ethyl Benzene	28.01	2,000	1,970	98.5
17	Xylene	33.65	2,000	2,006	100.3

A & B ID: 13160 & 13161

COMPANY: Maecorp

SAMPLE ID: W 11 & W 12

DATE: May 17,1988

PRECISION & ACCURACY CONTROL DATA

PARAMETERS	SPIKE VALUE	RECOVERED VALUE	% RECOVERY
PCB	5.0	4.92	98.40 %

COMPANY NAME: Maecorp

SAMPLE NUMBER: 13160 & 13161

SAMPLE ID: W11 & W 12

ROUTING AND TRANSMITTAL SLIP

Date 2-9-88

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1.		
2. Pat Churilla 5SCRL		
3.		
4.		
5.		

	Action		File		Note and Return
	Approval		For Clearance		Per Conversation
X	As Requested		For Correction		Prepare Reply
	Circulate		For Your Information		See Me
	Comment		Investigate		Signature
	Coordination		Justify		

REMARKS

Enclosed are the standards for the Greiners Lagoon data. Any questions or anything I can do to help please call.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)
EDWARD C. BURK, JR.
On-Scene Coordinator
U.S. EPA, ERU, Region V

Room No.—Bldg.

Phone No. (313) 675-3146

5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

USGPO 1983 0-381-529 (316)

1938-1988
50 YEARS
WADSWORTH/ALERT
LABORATORIES, INC.
Sampling, testing, mobile labs
4101 Shuffel Drive N.W. / North Canton, Ohio 44720

RECEIVED
FEB 10 1988
U.S. EPA

February 8, 1988

USEPA
Eastern Response Unit
9311 Groh Road
Grosse Ille, Michigan 48138

Re: Greiner's Lagoon, Maecorp Project #OH 523

Attn: Ed Burke

In response to our telephone conversation on February 2, 1988, I am enclosing chromatograms for standards that were analyzed in conjunction with samples submitted by Maecorp on September 3 and October 7, 1987. The submitted samples were given our laboratory identification lot numbers 2532 and 3000 and were reported to Maecorp on September 7 and October 13, 1987, respectively. Standards analyzed on September 4 and 5, 1987 correspond to lot #2532. Standards analyzed on October 8, 1987 correspond to lot #3000.

Please call with any questions or concerns.

Sincerely,

WADSWORTH/ALERT LABORATORIES, INC.

Claudia Shaffer
Account Executive

CAS/tkw

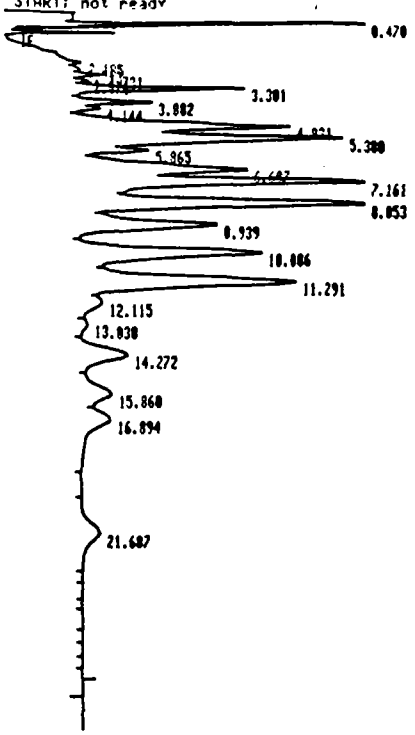
cc: Robert E. George
Karl Yost - Maecorp
Freddy Walker - Maecorp

Enclosures

CORPORATE AND LABORATORY: North Canton, Ohio (216) 497-9396
LABORATORY: Cleveland, Ohio (216) 642-9151
LABORATORY: Bartow, Florida (813) 533-2150
SOUTHEAST REGIONAL OFFICE: Lexington, South Carolina (803) 957-6590
24-HOUR ALERT LINE: (216) 497-9338

MUL FACTOR=1.0000E+00 \c 0.5 30

* RUN # 339 SEP 4, 1987 23:27:21
START: not ready



STOP

RUN# 339 SEP 4, 1987 23:27:21

IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
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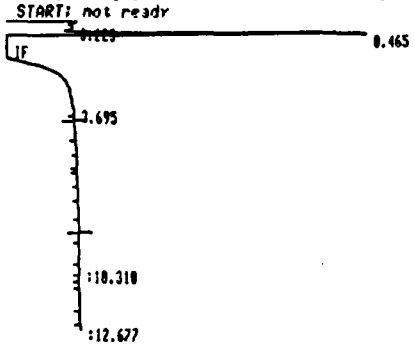
2.185	3360	PV	.580	1.16931
2.513	3276	VV	.289	1.14000
2.731	4206	VV	.240	1.46373
2.976	3535	VV	.211	1.23022
3.301	10884	VV	.276	3.78774
3.882	6459	VV	.274	2.24780
4.144	3987	VV	.259	1.38752
4.931	12834	VV	.445	4.46636
5.380	15250	VV	.389	5.30716
5.865	6038	VV	.387	2.10128
6.687	10565	VV	.528	3.67673
7.161	16693	VV	.423	5.80585
8.053	16544	VV	.444	5.75748
8.939	8883	VV	.597	3.09137
10.086	10801	VV	.629	3.75806
11.291	12283	VV	.645	4.27461
12.115	3071	VV	.769	1.06874
13.838	2237	VV	.768	.77850
14.272	3950	VV	.992	1.37464
15.860	3020	VV	1.084	1.05099
16.894	2809	VV	1.678	.97756
21.687	1653	VV	2.804	.57526

TOTAL HEIGHT= 287348
MUL FACTOR=1.0000E+00 41767 2d JG

* RUN # 340 SEP 5, 1987 00:16:58
START: not ready



STOP

RUN# 340 SEP 5, 1987 00:16:58

IDENTIFIER : DB-608 GC-H
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.225	2091	BV	.331	2.46991
.465	81565	VB	.063	96.34534
3.695	1003	PV	5.927	1.18475

BOTTLE # :

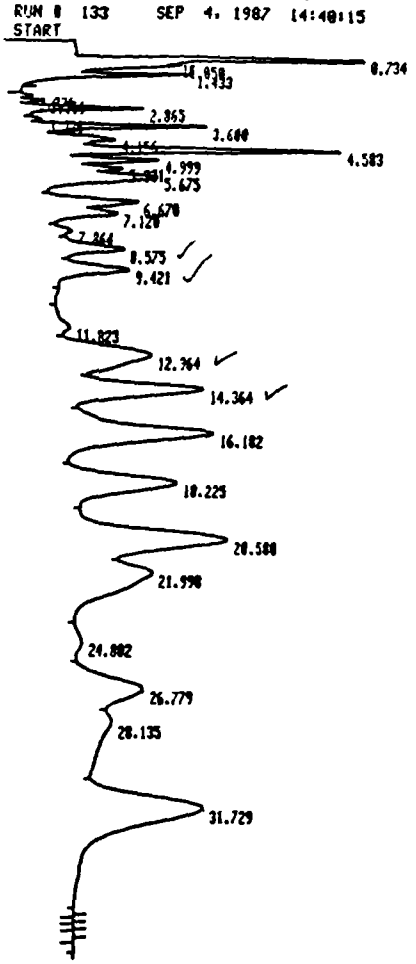
*

1016.4m
1260.8m
RS

* SEQ START

RUN # 133 SEP 4, 1987 14:40:15

START



STOP

RUN# 133 SEP 4, 1987 14:40:15

SAMPLE# 51

IDENTIFIER : GC-I, MIX

HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.734	207083	PB	.070	68.94794
1.050	1697	VB	.111	.56501
1.433	5452	VB	.119	1.81523
2.371	427	PB	.094	.14217
2.556	775	BB	.096	.25803
2.865	5428	BB	.153	1.80724
3.336	334	BB	.098	.11120
3.600	7728	BB	.169	2.57302
4.156	2007	BB	.231	.66823
4.583	12118	BB	.187	4.03467
4.999	3618	BB	.176	1.20461
5.331	1252	BB	.134	.41685
5.675	3316	BB	.308	1.10406
6.670	3006	BB	.242	1.00004
7.120	1792	BB	.257	.59664
7.864	541	BB	.231	.13012
8.575	2790	BB	.343	.92893
9.421	3101	BB	.389	1.03247
11.823	427	PB	.365	.14217
12.964	3689	BB	.841	1.22825
14.364	5720	BB	.568	1.90446
16.182	6627	BB	.757	2.20645
18.225	4878	BB	.765	1.62412
20.580	5824	BB	.758	1.93989
21.998	2156	BB	1.055	.71784
24.802	307	BB	.726	.10222
26.779	2316	BB	.911	.77111
28.135	406	BB	.973	.13518
31.729	5532	BB	1.340	1.84187

TOTAL HEIGHT= 300347

MUL FACTOR=1 .000E+00

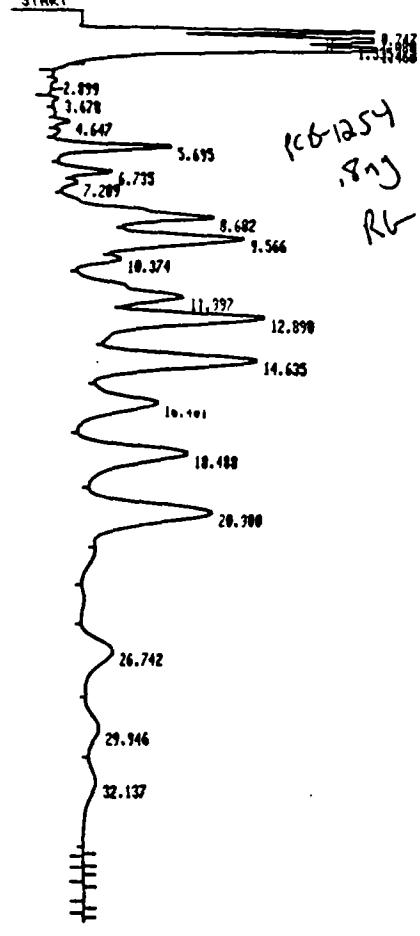
4.1749
2ml
RS

RUN # 134 SEP 4, 1987 15:21:03

START

RUN # 148 SEP 4, 1987 23:47:16

START



PCB-1254
.8ng
RV

STOP

RUN# 148 SEP 4, 1987 23:47:16

SAMPLE# 66

IDENTIFIER : GC-I, MIX
HEIGHT%

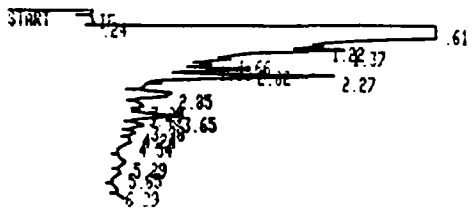
RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.747	147034	PV	.071	58.97424
1.080	21596	VB	.145	8.66200
1.335	1081	BB	.040	.43358
1.460	24123	BB	.078	9.67556
2.899	281	VB	.172	.11271
3.678	399	BB	.178	.16004
4.647	714	VB	.194	.28638
5.695	5401	PB	.296	2.16630
6.735	2127	BB	.256	.85312
7.209	428	BB	.227	.17167
8.682	4978	BB	.461	1.99664
9.566	5967	BB	.470	2.39332
10.374	1052	BB	.285	.42195
11.997	3475	BB	.613	1.39380
12.890	6998	BB	.500	2.80685
14.635	7397	BB	.645	2.96680
16.401	3336	BB	.735	1.33804
18.488	4915	BB	.803	1.97137
20.900	5641	BB	.885	2.26256
26.742	1390	PB	1.220	.55752
29.946	567	BB	1.079	.22742
32.137	419	BB	1.179	.16806

TOTAL HEIGHT= 249319
MUL FACTOR=1.0000E+00

11.39	165388	BB	0.543	1.189
12.70	27136	BB	0.626	0.195
14.40	118233	BB	0.536	0.850
16.17	36159	BB	0.670	0.260
17.18	8464	BB	0.893	0.061
20.81	5857	PB	0.297	0.042

TOTAL HGHT= 1.3912E+07
MUL FACTOR= 1.0000E+00

1221 4M



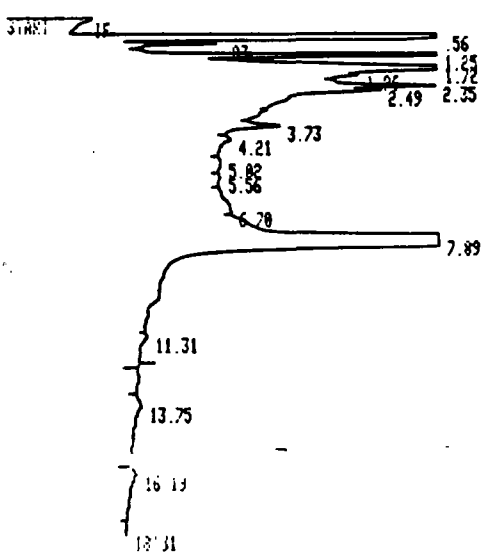
RUN # 496 SEP/05/87 09:13:15

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.24	6825	PB	0.243	0.080
0.61	7354940	SPB	0.195	86.390
1.22	28303	D BB	0.074	0.332
1.37	155679	D BB	0.055	1.829
1.66	36180	D BB	0.077	0.425
1.85	37680	D BB	0.077	0.443
2.02	163064	D BB	0.086	1.915
2.27	428622	BB	0.124	5.035
2.85	84822	BB	0.161	0.996
3.29	15369	BB	0.161	0.181
3.45	3545	D BB	0.062	0.042
3.65	99877	BB	0.137	1.173
3.98	33751	BB	0.138	0.396
4.24	15693	BB	0.119	0.184
4.54	16564	BB	0.223	0.195
5.29	18178	BB	0.232	0.214
5.65	9610	BB	0.212	0.113
6.29	4929	BB	0.106	0.058

TOTAL HGHT= 8513600
MUL FACTOR= 1.0000E+00

41731 2M



RUN # 497 SEP/05/87 09:21:28

HEIGHT%

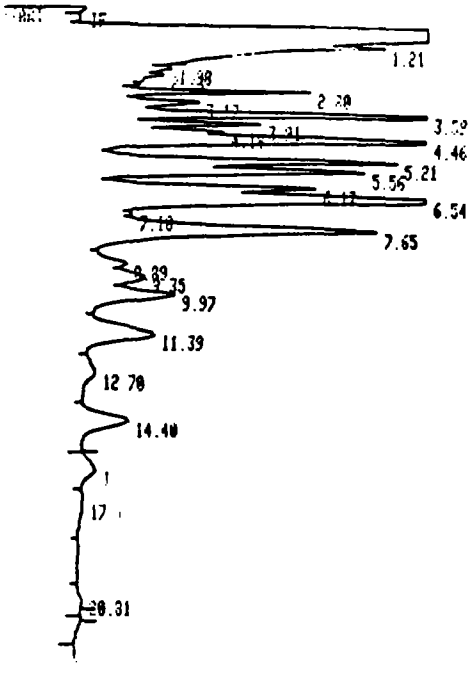
RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.56	6941880	SBB	0.093	42.726
0.83	210741	D BB	0.086	1.297
1.25	2294599	DSPB	0.086	14.123

GC-I-A

PEAK CAPH 1159

ZERO = 49.3
ATT 2↑ = 7
CHT SP = 0.5
PK WD = 0.16
THRSH = 5
AR REJ = 10000

1248 .8mg/L



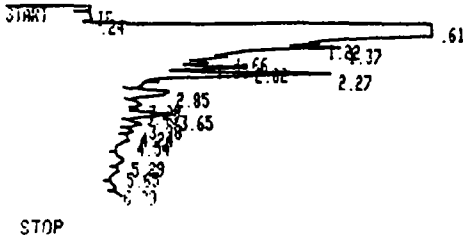
RUN # 495 SEP/05/87 08:47:47

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
0.58	7352336	SPB	0.195	52.848
1.21	168841	D BB	0.044	1.214
1.98	24301	BB	0.138	0.175
2.23	29305	D BB	0.062	0.211
2.80	457303	PB	0.123	3.287
3.17	141549	BB	0.166	1.017
3.59	1339858	SPB	0.146	9.631
3.91	281030	BB	0.135	2.020
4.18	65354	BB	0.098	0.470
4.46	711929	BB	0.246	5.117
5.21	554029	BB	0.176	3.982
5.56	470670	BB	0.198	3.383
6.17	285157	BB	0.163	2.050
6.54	750066	BB	0.280	5.391
7.10	3217	BB	0.100	0.023
7.65	663195	BB	0.364	4.767
8.89	29187	BB	0.156	0.210
9.35	63327	BB	0.333	0.455
9.97	160479	BB	0.335	1.154
11.39	165388	BB	0.548	1.189
12.70	27136	BB	0.626	0.195
14.40	118238	BB	0.536	0.850
16.17	36159	BB	0.670	0.260
17.18	8464	BB	0.898	0.061
20.81	5857	PB	0.297	0.042

TOTAL HGHT= 1.3912E+07
MUL FACTOR= 1.0000E+00

1221 .4mg/L

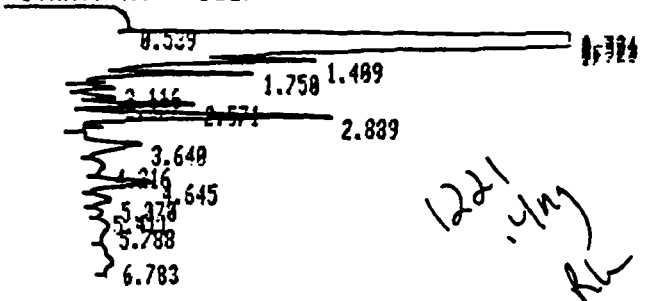


STOP

	[illegible]	BB	[illegible]	[illegible]
9.586	8723	BB	.481	.91078
11.210	210	BB	.011	.02193
11.753	855	BB	.448	.08927
12.541	1851	BB	.426	.19327
14.225	2319	BB	.674	.24213
15.910	370	BB	.719	.03863
18.060	1681	BB	.777	.17552
20.331	462	BB	.864	.04824

TOTAL HEIGHT= 957746
MUL FACTOR=1.0000E+00

* RUN # 150 SEP 5, 1987 09:11:10
START; not ready



1221
.4mg
RL

STOP

RUN# 150 SEP 5, 1987 09:11:10

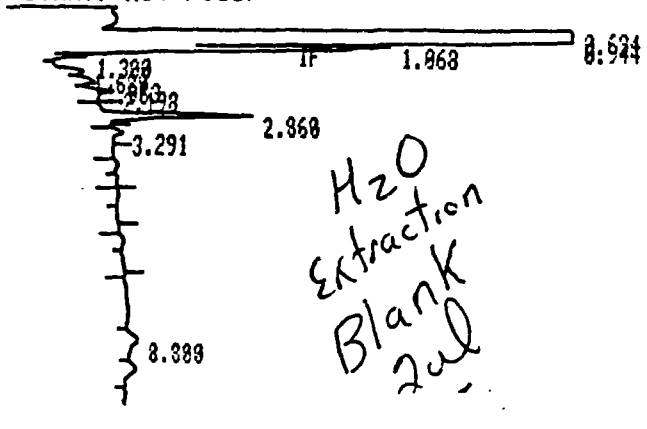
IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.539	363	BP	.464	.04201
.724	318317	PV	.045	36.83794
.801	479050	VV	.060	55.43912
.920	41142	VB	.146	4.76125
1.409	3500	BB	.091	.40505
1.750	4312	BB	.073	.49902
2.116	925	BB	.082	.10705
2.37[illegible]	834	BB	.093	.09652
2.571	3170	BB	.096	.36720
2.889	7433	BB	.148	.86020
3.640	1622	BB	.208	.18771
4.216	341	BB	.250	.03946
4.645	1719	BB	.167	.19894
5.070	582	BB	.184	.06735
5.411	217	BB	.146	.02511
5.738	300	BB	.326	.03472
6.783	271	BB	.394	.03136

TOTAL HEIGHT= 864101
MUL FACTOR=1.0000E+00

90904
2ul

* RUN # 151 SEP 5, 1987 09:19:16
START; not ready



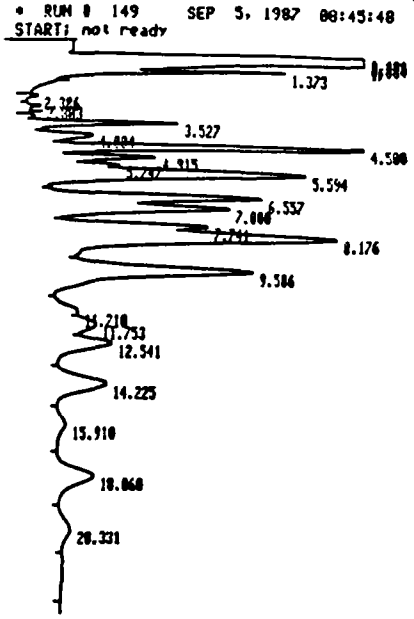
H_2O
Extraction
Blank
2ul

PEAK CAPACITY: 1204

ZERO = 15, 1.664
ATT 2^ = 1
CHT SP = 0.5
AR REJ = 0
THRSH = 1
PK WD = 0.08

248 .8mg RL

* RUN # 149 SEP 5, 1987 08:45:48
START: not ready



STOP

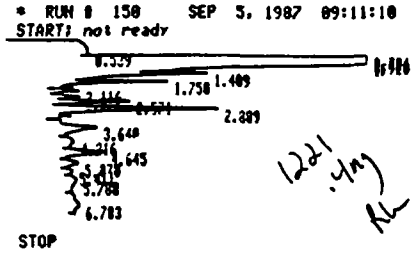
RUN# 149 SEP 5, 1987 08:45:48

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.681	634264	PV	.061	66.22467
.775	204356	VV	.059	21.33718
.884	29233	VB	.166	3.05227
1.373	7346	BB	.076	.76701
2.386	431	BB	.113	.04500
2.803	628	BB	.136	.06557
3.527	6599	PB	.154	.68901
4.004	2040	BB	.244	.21300
4.500	17874	BB	.188	1.86626
4.915	3722	BB	.173	.38862
5.247	749	BB	.114	.07820
5.594	10148	BB	.336	1.05957
6.557	7099	BB	.222	.74122
7.000	5395	BB	.260	.56330
7.741	2725	BB	.191	.28452
8.176	8666	BB	.332	.90483
9.586	8723	BB	.481	.91078
11.210	210	BB	.011	.02193
11.753	855	BB	.448	.08927
12.541	1851	BB	.426	.19327
14.225	2319	BB	.674	.24213
15.910	370	BB	.719	.03863
18.060	1681	BB	.777	.17552
20.331	462	BB	.864	.04824

TOTAL HEIGHT= 957746
MUL FACTOR=1.0000E+00

* RUN # 150 SEP 5, 1987 09:11:10
START: not ready



1221 .4mg RL

STOP

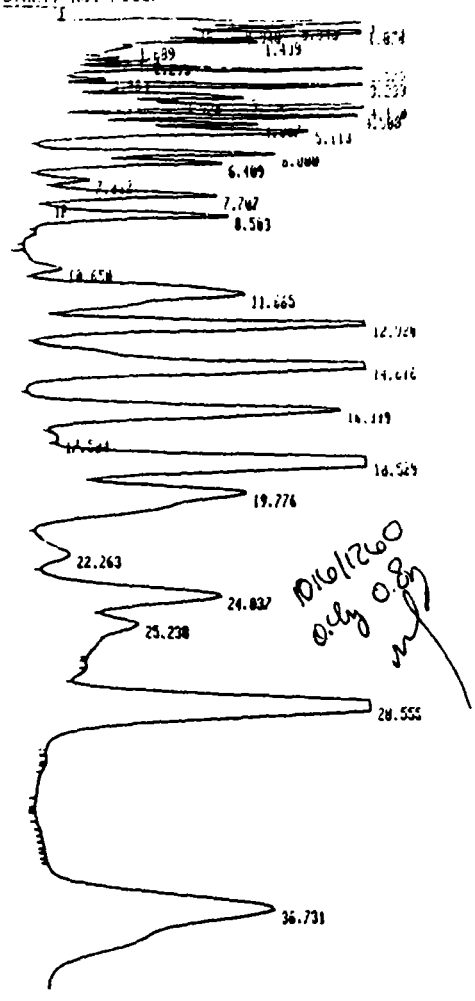
RUN# 150 SEP 5, 1987 09:11:10

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.739	363	BP	.464	.04201
.724	313317	PV	.045	36.83794
.801	479050	VV	.060	55.43912
.920	41142	VB	.146	4.76125
1.409	3500	BB	.091	.40505
1.758	4312	BB	.073	.49902
2.116	925	BB	.082	.10705
2.477	834	BB	.093	.09652
2.571	3172	PB	.096	.36720
2.889	7433	BB	.148	.86020
3.640	1632	BB	.208	.18771
4.216	341	PB	.250	[illegible]

GC-

RUN # 536 OCT 8, 1987 06:49:54
START not ready



GC I-B

D1601260
only 0.8g

STOP

RUN# 536 OCT 8, 1987 06:49:54

IDENTIFIER : GC-I. MIX
WEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.633	583750	PB	.055	66.54848
.840	3950	PV	.083	.45031
.948	1861	VB	.047	.21216
1.070	18634	BB	.149	2.12431
1.439	4457	BB	.114	.50811
1.689	612	BB	.179	.06977
2.120	1239	BB	.084	.14125
2.295	2657	BB	.087	.30290
2.575	14622	BB	.114	1.66693
2.983	1452	BB	.103	.16553
3.233	20240	BB	.116	2.30739
3.736	5517	PB	.195	.62895
3.924	1021	BB	.067	.11640
4.130	35082	BB	.144	3.99941
4.508	12142	BB	.152	1.38421
4.807	5538	BB	.124	.63134
5.113	8352	BB	.253	.95214
6.000	8632	BB	.198	.98406
6.409	6038	BB	.203	.68743
7.082	1959	BB	.208	.22333
7.707	7734	BB	.289	.88169
8.503	8651	BB	.322	.98623
10.650	1443	PB	.355	.16450
11.665	9335	BB	.753	1.06421
12.920	16088	BB	.449	1.83406
14.616	18312	BB	.595	2.08760
16.399	13928	BB	.605	1.58782
17.504	239	BB	.342	.02725
18.529	18456	BB	.638	2.10402
19.776	7915	BB	.935	.90232
22.263	1464	BB	.752	.16690
24.037	6612	BB	.752	.75378
25.238	1920	BB	.696	.21888
28.555	16896	PB	.975	1.92617
36.731	10440	I VP	1.757	1.19018

TOTAL HEIGHT= 877180
NOR FACTOR=1.0000E+00

12/24 7.8%

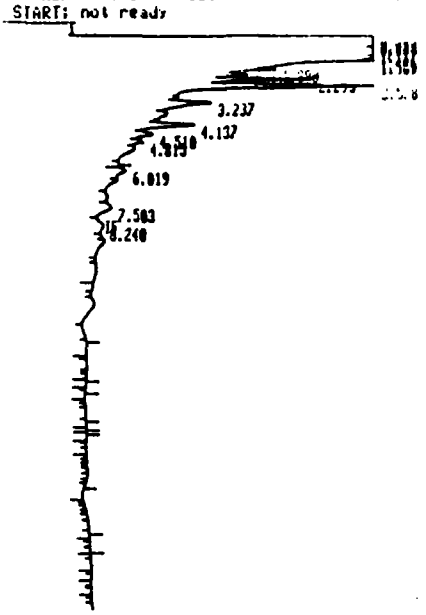
.618	3000421	PV	.026	94.2[illegible]05
.725	94046	VV	.050	2.33363
.833	30435	VV	.090	.75501
.954	19540	VB	.059	.48473
1.082	6521	BB	.063	.16177
1.181	1895	BB	.041	.01701
1.310	2741	BB	.065	.06006
1.470	3387	BB	.071	.08402
1.559	1736	BB	.043	.04307
1.670	2904	BB	.083	.07204
1.905	3356	BB	.087	.08325
2.291	4578	BB	.145	.11357
2.580	13998	BB	.122	.34725
3.004	1679	BB	.115	.04165
3.237	7056	BB	.114	.17504
3.645	550	BB	.051	.01364
3.925	445	PB	.069	.01104
4.139	13142	BB	.146	.32602
4.515	4167	BB	.148	.10337
4.815	1916	BB	.120	.04753
5.117	2994	BB	.250	.07427
6.020	3061	BB	.198	.07594
6.467	1642	BB	.175	.04073
7.103	1050	BB	.171	.02625
7.505	3159	BB	.322	.07837
8.242	297	BB	.200	.00737
8.815	2727	BB	.387	.06765
10.313	24	PB	.235	.00060
10.720	333	BB	.365	.00826
11.430	619	BB	.403	.01536
13.036	650	PB	.667	.01612

TOTAL HEIGHT=4031077
MUL FACTOR=1.0000E+00

GCI-B

'22' 0.1 gm

* RUN # 541 OCT 8, 1987 09:08:45
START: not ready



STOP

RUN# 541 OCT 8, 1987 09:08:45

IDENTIFIER : GC-1, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.629	441604	PV	.056	40.68654
.719	562084	VV	.049	51.86304
.831	45780	VB	.105	4.21808
1.117	9362	BB	.155	.86260
1.421	1021	BB	.071	.09407
1.559	3545	BB	.027	.32663
1.398	978	BB	.067	.09011
2.110	970	BB	.086	.08937
2.295	4192	BB	.069	.38624
2.578	8869	BB	.120	.81717
3.237	1867	VB	.173	.17202
4.137	2163	VB	.153	.19929
4.510	648	BB	.151	.05971
4.815	327	BB	.139	.03013
6.019	345	BB	.195	.03179
7.503	505	VB	.332	.04653
8.248	268	BB	.285	.02469

TOTAL HEIGHT=1085328
MUL FACTOR=1.0000E+00

43 of 16

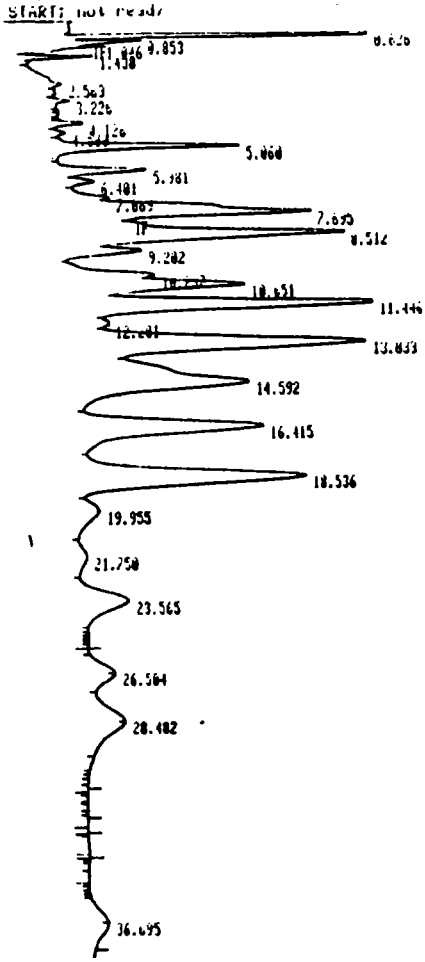
28.555	16896	PB	.915	[illegible]	
36.731	18440	I VP	1.757	1.19018	

TOTAL HEIGHT= 877180
MUL FACTOR=1.0000E+00

GC I-B

1254
0.3[illegible]

RUN # 537 OCT 8, 1987 07:31:31
START: not ready



STOP

RUN# 537 OCT 8, 1987 07:31:31

IDENTIFIER : GC-I, MIX
HEIGHT%

RT	HEIGHT	TYPE	WIDTH	HEIGHT%
.626	415335	PB	.054	80.05835
.853	2848	BB	.117	.54892
1.046	1007	BB	.147	.19409
1.438	3054	BB	.113	.58862
2.563	514	PB	.276	.09907
3.226	710	PB	.149	.13684
4.126	1286	VB	.150	.24786
4.500	434	BB	.150	.08365
5.060	8374	BB	.217	1.61399
5.981	3635	PB	.206	.70060
6.401	1002	BB	.200	.19312
7.695	8907	BB	.373	1.71672
8.512	10637	BB	.381	2.05016
9.202	2256	BB	.244	.43482
10.651	5184	BB	.327	.99915
11.446	13176	BB	.382	2.53952
12.201	326	BB	.226	.06283
13.033	11696	BB	.521	2.25426
14.592	6704	BB	.702	1.29212
16.415	8266	BB	.626	1.59317
18.536	10159	BB	.671	1.95803
19.955	764	BB	.768	.14725
21.750	406	BB	.704	.07825
23.565	2085	BB	.853	.40186
26.504	74	PB	.372	.01426

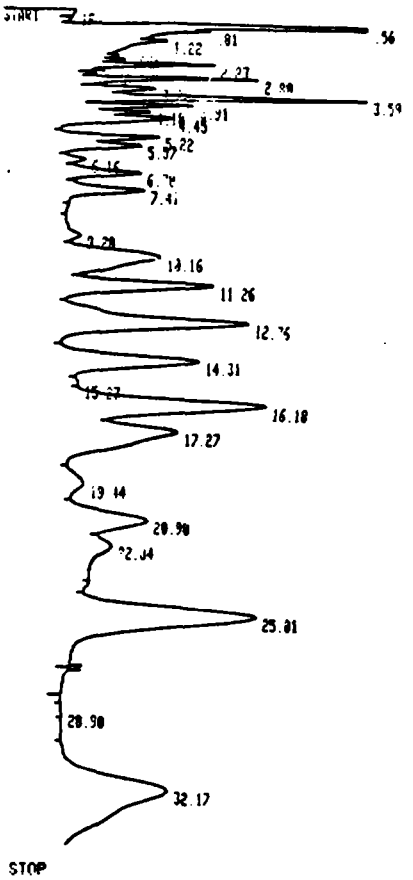
TOTAL HEIGHT= 518839
MUL FACTOR=1.0000E+00

1248
0.2[illegible]

20.55 19148 PB 0.851 0.376

TOTAL HGHT= 509350A
MUL FACTOR= 1.0000E+00

STD 1016/1260 0.449/0.805 JB



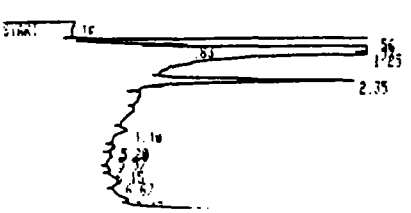
FILN 0 SA2 SEP/05/87 12:52:45

HEIGHT%

RT	HEIGHT	TYPE	AK/HT	HEIGHT%
0.56	5284592	SPB	0.085	42.659
1.22	77735	D BB	0.129	0.627
1.83	22702	D BB	0.081	0.183
1.28	48149	D BB	0.079	0.389
2.[illegible]	342426	BB	0.113	2.764
[illegible]	22291	D BB	0.088	0.180
[illegible].80	508163	BB	0.125	4.101
3.22	143457	PB	0.167	1.158
3.59	[illegible]07847	BB	0.146	7.329
3.91	[illegible]5035	BB	0.139	2.365
4.18	1[illegible]646	BB	0.112	0.933
4.45	207275	BB	0.287	1.673
5.22	213759	BB	0.175	1.726
5.57	154333	BB	0.196	1.246
6.16	[illegible]526	BB	0.192	0.392
6.79	207316	BB	0.264	1.673
7.41	[illegible]11	BB	0.289	1.399
9.28	[illegible]1	PB	0.282	0.277
10.16	[illegible]59	BB	0.655	2.127
11.26	42[illegible]882	BB	0.414	3.413
12.76	558986	BB	0.557	4.511
14.31	392120	BB	0.553	3.165
15.23	4462	BB	0.209	0.036
16.18	514179	BB	0.575	4.150
17.27	244970	BB	0.820	1.9[illegible]
19.44	44739	BB	0.674	0.361
20.38	185275	BB	0.673	1.495
22.04	51655	BB	0.558	0.417
25.01	533045	PB	0.313	4.302
28.90	2351	PB	0.428	0.019
32.17	319979	I PH	1.694	2.582

TOTAL HGHT= 1.2391E+07
MUL FACTOR= 1.0000E+00

41757 1-100 lw JB



FACSIMILE COVER SHEET

Receiving party Edward Burke

Sending party Analytic & Biological Labs, Inc.

ANALYTIC & BIOLOGICAL LABORATORIES, INC.
29079 FORD ROAD
GARDEN CITY, MICHIGAN 48135

Facsimile number (313) 422-1996

Todays date 6/10/88

Number of pages after this page 4

Contact person Freddy Walker / Edward Burke

Telephone number / 675/3144

SPECIAL INSTRUCTIONS:

Tried Calling to give verbal
no answer to number given above)
Have a Nice Day

Analytic & Biological
Laboratories, Inc.

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06-10-88

SAMPLE NO: SEE BELOW
Page 4

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: SEE BELOW

TAKEN	RECEIVED
SEE BELOW	06-06-88

13560	S-109		
	PCB Soil Analysis	32.3 (Aroclor 1260)	ppm
13561	R-2		
	PCB Soil Analysis	< 1.0	ppm

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Director of Laboratories

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UNITED STATES NUCLEAR REGULATORY COMMISSION
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06-10-88

SAMPLE NO: SEE BELOW
Page 3

MAECORP
17450 S. HALSTEAD
HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: SEE BELOW

TAKEN	RECEIVED
SEE BELOW	06-06-88

13557	S-98		
	PCB Soil Analysis	< 1.0	ppm
13558	S-101		
	PCB Soil Analysis	< 1.0	ppm
13559	S-108		
	PCB Soil Analysis	53.6 (Aroclor 1260)	ppm

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HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: SEE BELOW

TAKEN	RECEIVED
SEE BELOW	06-06-88

13554	S-51		
	PCB Soil Analysis	1.6 (Aroclor 1254)	ppm
13555	S-88		
	PCB Soil Analysis	11.3 (Aroclor 1254)	ppm
13556	S-96		
	PCB Soil Analysis	11.0 (Aroclor 1254)	ppm

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06-10-88

SAMPLE NO: SEE BELOW
Page 1

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HOMEWOOD, IL 60430

FREDDIE WALKER

SAMPLE DESCRIPTION: SEE BELOW

TAKEN	RECEIVED
SEE BELOW	06-06-88

13551	S-28	ABL 7443	
	PCB Soil Analysis	8.1 (Aroclor 1260)	ppm
13552	S-30		
	PCB Soil Analysis	8.9 (Aroclor 1260)	ppm
13553	S-41		
	PCB Soil Analysis	< 1.0	ppm

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