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example: *report . Site Number . Year-Month . Report Name . pdf*

Project Site numbers will be proceeded by the following:

Municipal Brownfields - B
Superfund - HW
Spills - SP
ERP - E
VCP - V
BCP - C

BEL-1983-5-45

BELL AEROSPACE TEXTRON
POST OFFICE BOX ONE
BUFFALO, N.Y. 14240

COMPANY PRIVATE

Encl. A

GZA OF NEW YORK, P.C.
GOLDBERG-ZOINO ASSOCIATES OF NEW YORK, P.C.
GEOTECHNICAL-GEOHYDROLOGICAL CONSULTANTS

DONALD T GOLDBERG
WILLIAM ZOINO
JOSEPH D GUERTIN JR
JOHN E AYRES
JOHN P SULLIVAN
STEVEN J TRETTEL
JAMES H REYNOLDS
CONSULTANTS:
WALTER E JAWORSKI
STANLEY M BEMBEN

JAMES H. REYNOLDS,
GENERAL MANAGER

1983 E.E.K.

January 10, ~~1982~~
File: R3336

Bell Aerospace/Textron
P.O. Box 1
Buffalo, New York 14240

Attention: Mr. Earl E. Kramer

Re: Status of Geohydrologic Studies at Bell Aerospace/Textron's Wheatfield, New York facility

Dear Mr. Kramer:

Per your recent request please find attached a brief summary report prepared by Goldberg-Zoino Associates of New York, P.C. (GZA) which describes the initial geohydrologic studies done at your Wheatfield, New York site. Also included in this Report is a discussion of additional studies currently planned for the site.

Please do not hesitate to contact GZA if you have any questions or if you require additional information.

Very truly yours,

GOLDBERG-ZOINO ASSOCIATES OF N.Y., P.C.

James H. Reynolds
Sr. Associate & General Manager

Raymond L. Kampff
Project Geohydrologist

RLK/ck
Enclosures

SUITE 1000 RAND BUILDING
BUFFALO, NY 14203
716/856-8980

COMPANY PRIVATE

NEWTON UPPER FALLS, MA
BUFFALO, NY
CONNECTICUT RIVER VALLEY
PROVIDENCE, RI

STATUS REPORT

GEOHYDROLOGIC STUDIES FOR BELL AEROSPACE/TEXTRON
AT THE WHEATFIELD, N.Y. SITE

Bell Aerospace/Textron (BAT) maintains a 80 x 60 foot (ft.) neutralization pond at their Wheatfield, New York facility to collect, treat, and dispose of liquid wastes generated primarily during the cleaning of rocket test cells following the firing of hyrdrazine-fueled rocket engines. The pond, constructed in the early 1950's is 9 ft. deep and it contains between 3 to 6 ft. of water depending on discharge rates. The neutralization pond is contained entirely within the overburden and it does not have a synthetic liner. Figure 1 presents a locus plan of the BAT site and the neutralization pond.

Field studies by Goldberg-Zoino Associates of New York, P.C. (GZA) began at the site in August, 1982 and they consisted of the drilling of six test borings in the overburden, installation of ground water monitoring wells in five of these borings, recording of ground water levels in these monitoring wells, and the sampling and testing of ground and neutralization pond water. Additionally, field permeability tests were done in each of the wells and soil samples collected from the test borings were tested in GZA's soils laboratory. An exploration plan of the BAT site is attached as Figure 2 and it presents the location of test borings and monitoring wells.

Subsurface explorations indicated that the neutralization pond was apparently excavated through the following materials beginning at ground surface:

- ≈ 2.0 ft. layer of miscellaneous fill materials containing various amounts of slag, cinders, and silt with occasional organic deposits.

- ≈ 1.5 ft. layer of stiff gray-black clay with intermixed silt.

- ≈ 3.0 to 4.0 ft. layer of red-brown varved clay classified as a CL according to the Uniform Soil Classification System. Laboratory tests done on an undisturbed sample of this clay indicated a low permeability of 5.6×10^{-7} cm/sec.

- ≈ 3.0 to 3.5 ft. layer of mixed silts, sands, and clays generally classified as a ML material. Field permeability tests done in this material ranged from 4×10^{-5} cm/sec to 2×10^{-3} cm/sec depending on the percentage of sand. These higher permeabilities represent material particularly conducive to the transmission of ground water and in fact ground water was first encountered in the test borings in this material.

The invert of the pond is on a stratum of very dense sandy to silty glacial till which occurs immediately below the "saturated zone". The glacial till, while no permeability measurements have been taken, is known to be very impermeable.

GZA

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Figure 3 presents a stratigraphic section (A-A': between B-1 and B-2) of the overburden at the BAT site. The approximate profile of the neutralization pond, as determined by field measurements done by GZA on September 3, 1982, is superimposed on this stratigraphic section.

Ground water at the BAT was measured consistently at depths of between 4 and 5 ft. below the ground surface. The measured ground water depths were converted to ground water elevations for the purpose of analyzing ground water flows. It should be noted that the survey datum used for this determination is arbitrary and it represents the ground surface elevation at each well relative to various bench mark points selected around the neutralization pond. Figures 4 and 5 present summary plots of water elevation versus time for each of the wells and the neutralization pond.

The ground water elevation data for wells at the BAT site were used to ascertain ground water flow directions by preparing ground water gradient plots. One such plot is presented as Figure 6 showing that a "ground water mound" has apparently formed at the site wherein ground water flows radially outward from the neutralization pond as the water in the pond continuously recharges the local ground water regime. The monitoring wells installed at the BAT site are apparently affected by this ground water mound, such that the regional ground water flow of the area is masked and undetermined. Additional data from wells farther from the zone of influence of the pond will be required to determine the regional flow of ground water.

The rate of ground water flow away from the neutralization pond is dependent primarily upon the lateral extent of the permeable zone identified in the initial test boring phase of this study. GZA's current estimates of ground water transport times and distances based upon measured permeability data, typical ground water gradients, and assumptions of subsurface conditions is about 15 ft./year, or 300 ft. in 20 years. Wells planned for the subsequent phase of this study will either confirm this assumption or require a reassessment based upon the newly developed imformation.

The apparent hydraulic connection of the neutralization pond to the ground water regime required the sampling and analysis of neutralization pond and ground water samples to ascertain if any contamination from the pond had impacted the ground water. Three sample rounds were done at various locations around the BAT neutralization pond as summarized below:

9-1-82 - Sample Location: Water and bottom sediment samples were collected from the neutralization pond and tested.

Results: A screening of samples with a Century Systems Model OVA-128 portable organic vapor analyzer (portable GC) revealed the presence of elevated levels of volatile organics (methylene chloride, Trans-1,2-dichloroethylene, and trichloroethylene) with particulary high levels determined in bottom sediment samples. A split sample of the bottom sediment was delivered to Energy Resource Co., Inc. (ERCO) of Cambridge, Mass. for a head space GC analysis for further quantification of the findings. The results of this analysis revealed 250,000 parts per billion (ppb) of trichloroethylene, 6,300 ppb of Trans-1,2-dichloroethylene, and 2,600 ppb of methylene chloride.

9-14-82 - Sample Location: Samples were collected from all monitoring wells and from the neutralization pond to determine if contamination found in the pond had, in fact, impacted the ground water.

Results: Portable GC results indicated that volatile organic contamination had reached the ground water. Constiuents and levels were similar in pond and ground water well samples.

10-28-82 - Sample Location: To confirm and further quantify the portable GC findings the EPA volatile organic priority pollutants were tested via GC/MS (EPA Method 624) in four samples (ground water from wells B-5 and B-6, the neutralization pond water, and the neutralization bottom sediment). Separate split samples were tested by two different analytical laboratories for quality control purposes:RECRA Research, Inc. of Tonawanda, New York and Advanced Environmental Systems, Inc. which subcontracted the work to Mead Compuchem of Research Triangle Park of North Carolina.

Results: The earlier results of the Portable GC were confirmed and quantified. Water in well B-6, which apparently represents the most contaminated ground water showed levels of trichloroethylene ranging from 400,000 ppb to 440,000 ppb; Trans-1,2-dichloroethylene ranging from 12,000 to 16,000 ppb; methylene chloride ranging from 110,000 to 140,000 ppb; and various other volatile organic constituents.

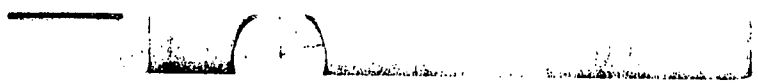
The results of all sampling done at the BAT site to date are presented in the attached Appendix A.

The findings of these preliminary geohydrologic studies warrant additional work at the BAT site including installation of additional soil and rock monitoring wells at various distances from the neutralization pond, more sampling of ground and surface water supplies, and a detailed analysis of findings to design appropriate remedial plans for the site. GZA has submitted, and BAT is currently studying, a proposal for these additional studies. It is anticipated that following BAT's approval these additional studies should be completed within 14 to 16 weeks.

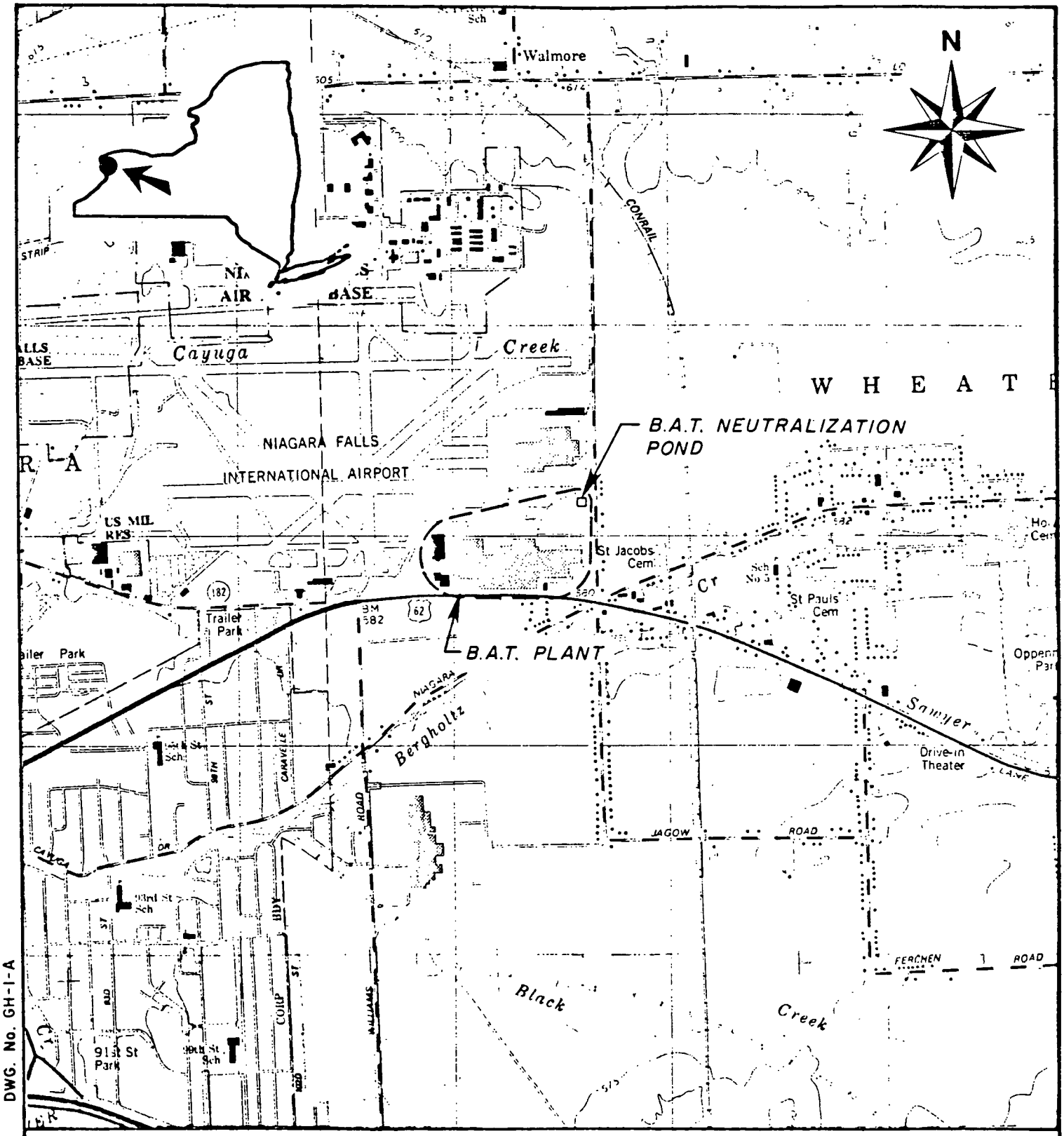
It should be understood that the analyses and findings presented in this Report are preliminary in nature and thus may be based on a limited amount of data. Future studies may reveal additional data which may change substantially some of the findings presented herein.

LIST OF FIGURES

GZA



FIGURES



FROM: USGS TONAWANDA WEST, NEW YORK
QUADRANGLE MAP (1980)

DWG. No. GH-1-A

FILE No. R3336

GZA

GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

LOCUS PLAN

DEC. 1982

FIGURE No. 1

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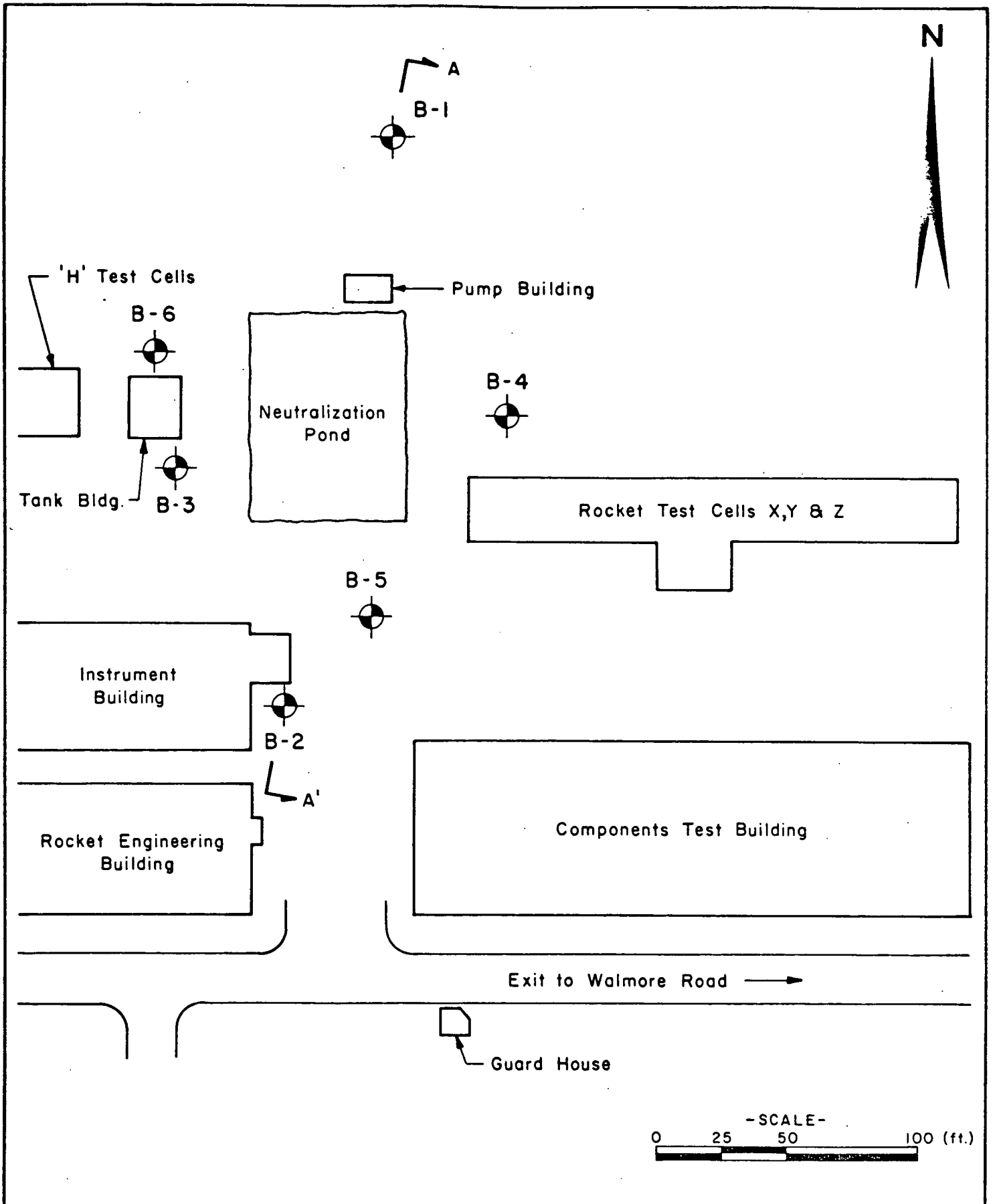


FILE No. R3336 DWG. No. GH-2-A

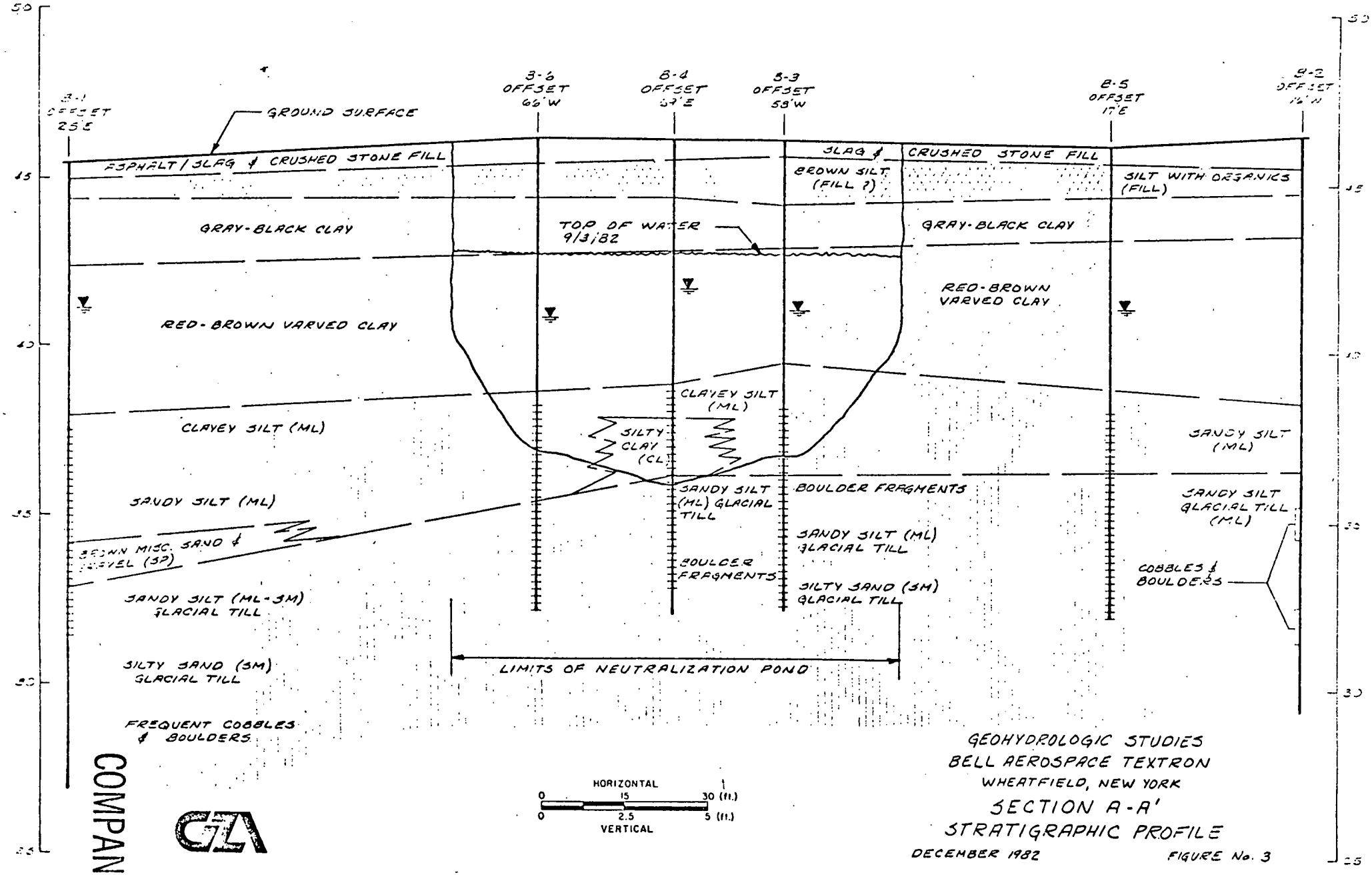
GZA

GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

EXPLORATION PLAN

DEC. 1982 FIGURE No. 2

COMPANY PRIVATE

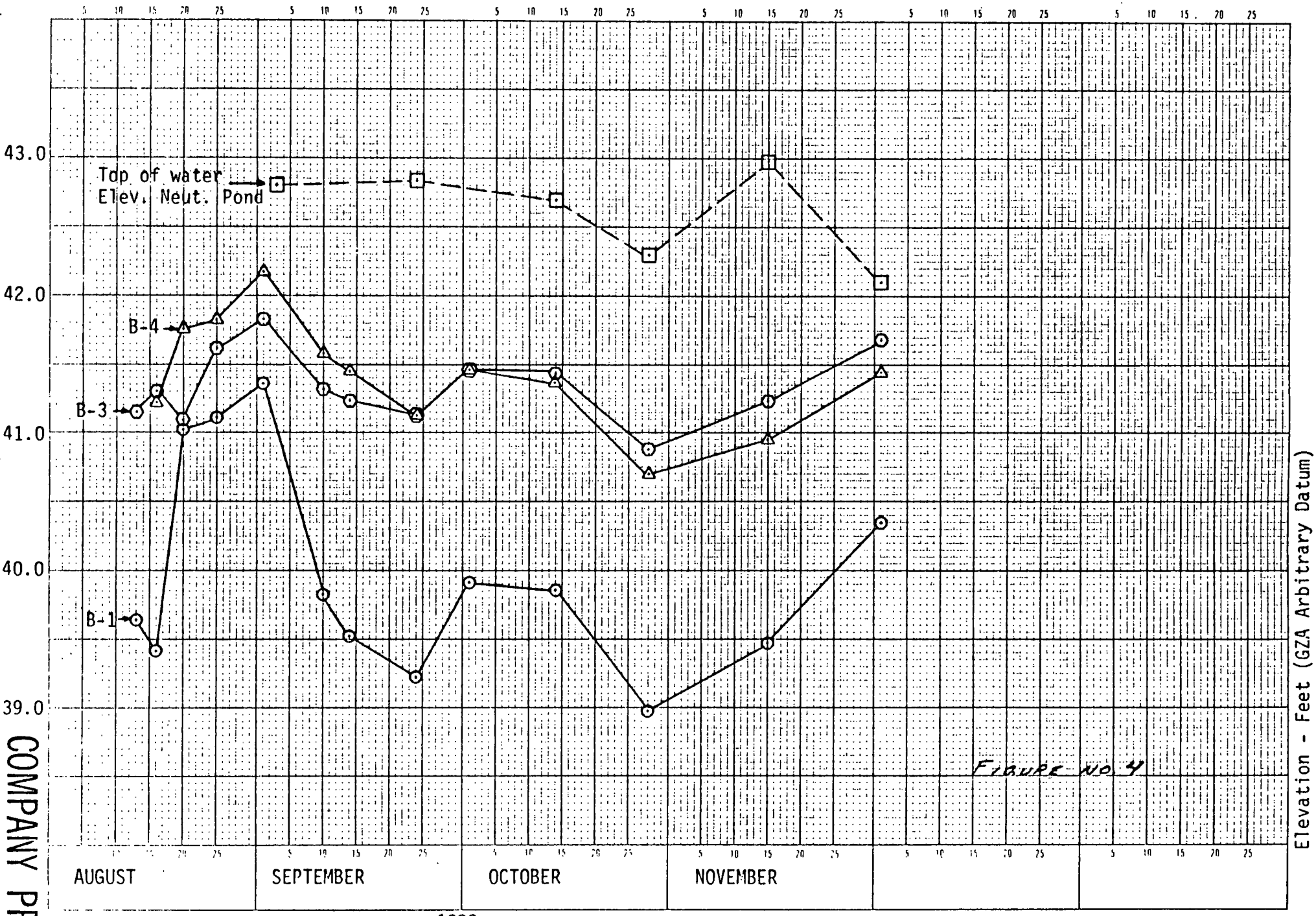


GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

SECTION A-A'
STRATIGRAPHIC PROFILE

DECEMBER 1982

FIGURE No. 3



COMPANY PRIVAT

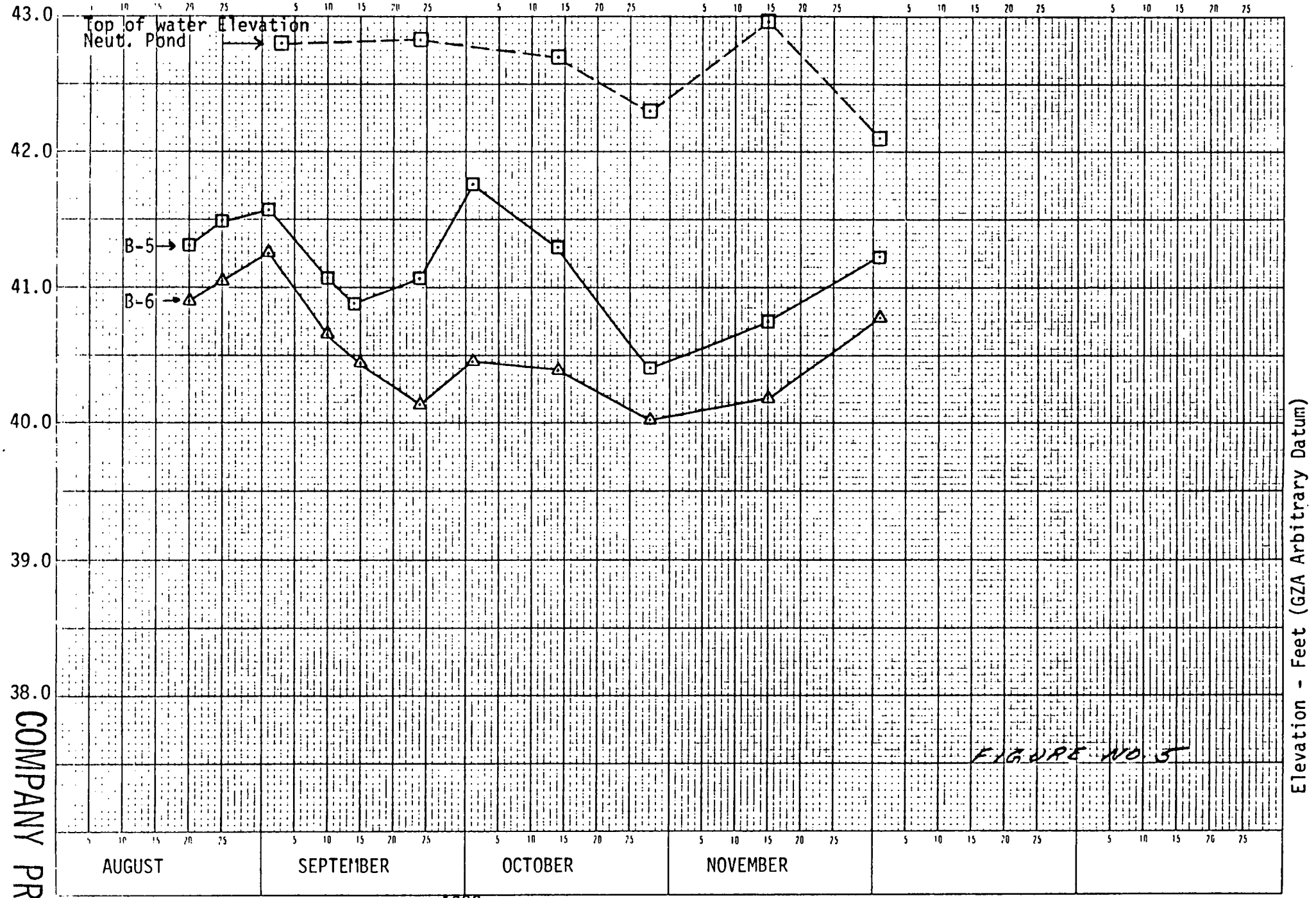
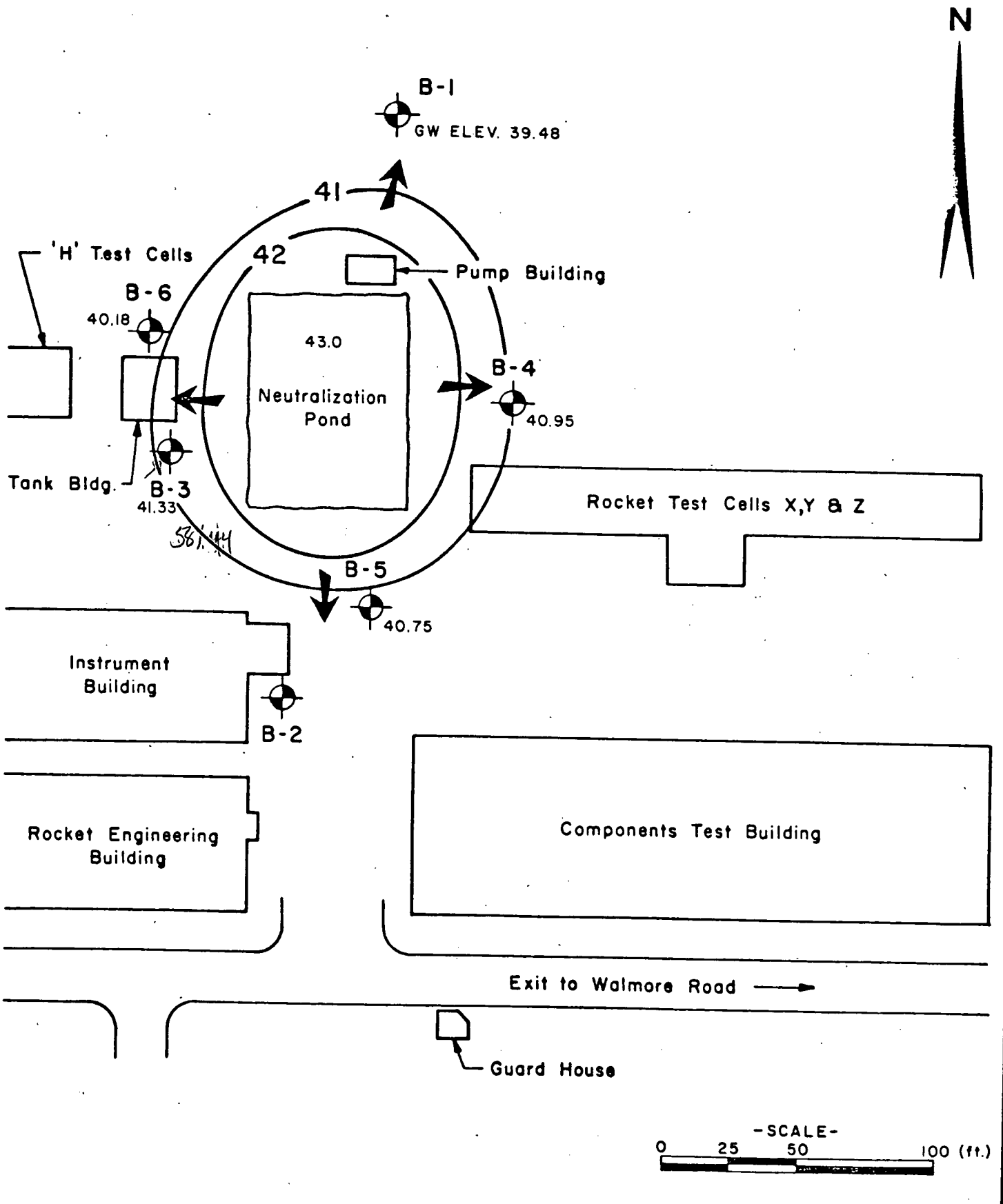


FIGURE NO. 5



FILE No. R3336 DWG. No. GH-3-A

GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

GROUND WATER CONTOURS
FROM 11-15-82

DEC. 1982

FIGURE No. 6

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APPENDIX A

GEOHYDROLOGIC STUDIES-BELL AEROSPACE/TEXTRON
WHEATFIELD, N.Y.

Log of Water Quality Testing

Sampling Date: 9-1-82

Water sample taken from neutralization pond and delivered to ARO Laboratory for analysis.

Water and sediment samples taken from neutralization pond and tested by GZA with a Century Systems Model OVA-128 portable organic vapor analyzer (portable GC)

Neutralization sediment sample tested by Energy Resource Co., Inc., Cambridge, Mass. (ERCO) for volatile organics via headspace GC.

Sampling Date: 9-14-82

Water sample from neutralization pond and ground water samples from all well tested by ARO Laboratory.

Portable GC test done by GZA on duplicate set of the above samples.

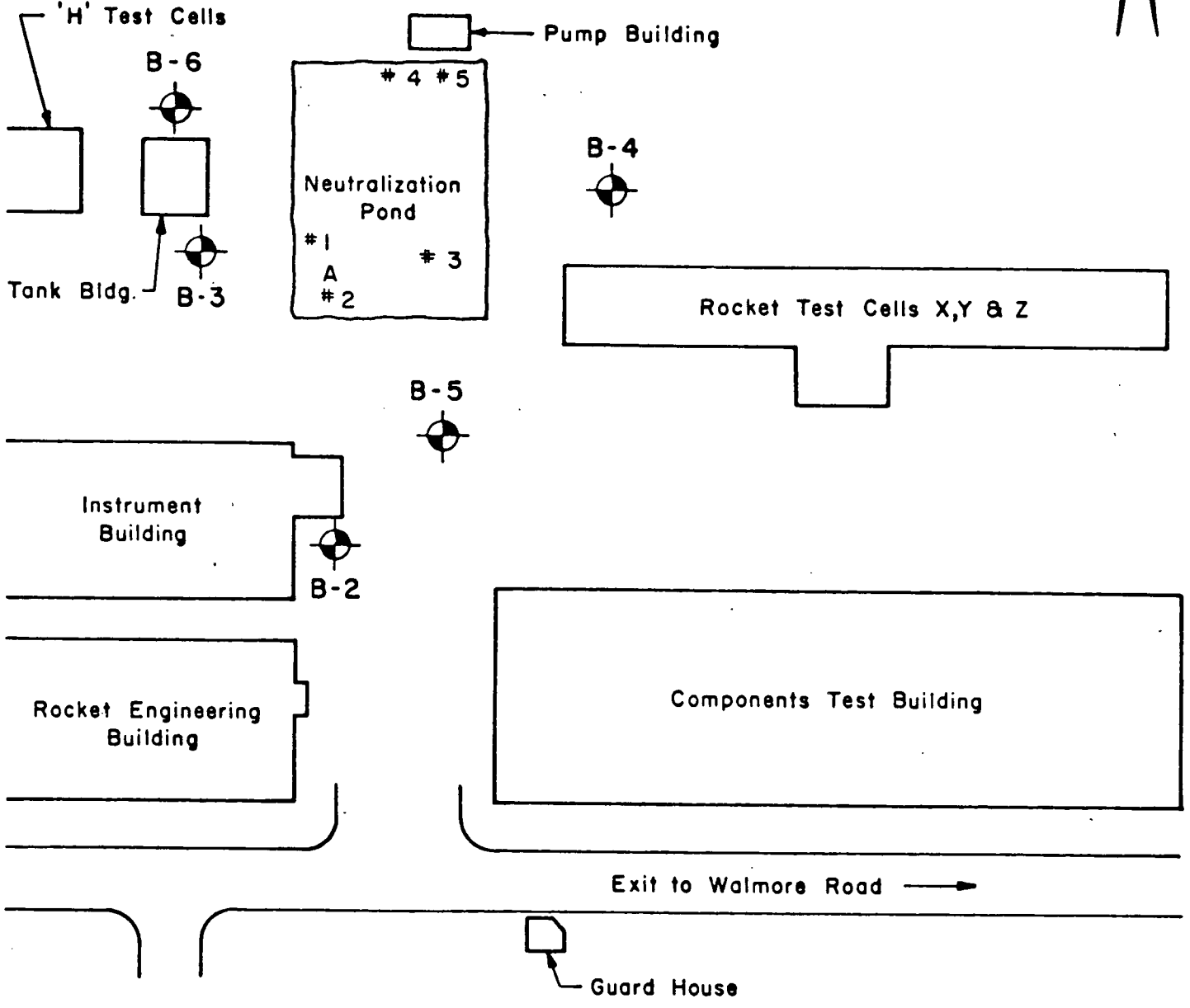
Sampling Date: 10-28-82

Split samples collected from well B-5, B-6, the neutralization pond water, and the neutralization pond sediment and delivered to Advanced Environmental Systems (AES), RECRA Research, Inc., Bell Aerospace/Textron and GZA. AES and RECRA analyzed each sample for EPA priority pollutants via GC/MC (EPA Method 624) and GZA tested samples via the portable GC.

Note: Field measurements for pH, temperature, salinity, and specific conductivity were also done by GZA throughout this study. Measurements were made with Yellow Spring Instrument Company, model YSI 33 SCT salinity, conductivity, temperature meter and an Orion model 201 digital pH meter.

A - Neutralization Pond water sample tested by ARO
Samples tested by GZA with portable GC
#1, #3, & #4 - neutralization pond water samples
#5 - neutralization pond sediment sample
#2 - neutralization pond sediment sample tested by ERCO for volatile organics

N



-SCALE-
0 25 50 100 (ft.)

DWG. No. GH-8-A

FILE No. R3336

GZA

GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

9/1/82: Neutralization Pond Sampling Locations

DEC. 1982

COMPANY PRIVATE

PRELIMINARY

PORTABLE GC SCREENING RESULTS

PURGEABLE ORGANIC ANALYSIS RESULTS

	Sample No.	#3	#5		
	Laboratory	GZA	GZA		
	Analysis by	Portable GC	Portable GC		
COMPOUNDS	Sampling Date	9-1-82	9-1-82		
1. Chloromethane					
2. Bromomethane					
3. Dichlorodifluoromethane					
4. Vinyl chloride					
5. Chloroethane					
6. Methylene chloride		*	**		
7. Acrylonitrile					
8. Trichlorofluoromethane					
9. 1,1-dichloroethylene					
10. 1,1-dichloroethane					
11. Trans-1,2-dichloroethylene		*	**		
12. Chloroform					
13. 1,2-dichloroethane					
14. 1,1,1-trichloroethane					
15. Carbon tetrachloride					
16. Bromodichloromethane					
17. 1,2-dichloropropane					
18. Trans-1,3-dichloropropylene					
19. Trichloroethylene		*	**		
. Benzene					
... Dibromochloromethane					
22. Cis-1,3-dichloropropylene					
23. 1,1,2-trichloroethane					
24. Bromoform					
25. 1,1,2,2-tetrachloroethane					
26. Tetrachloroethylene					
27. Toluene					
28. Chlorobenzene					
29. Ethyl benzene					
30. Bis-chloromethyl ether					
31. 2-chloroethyl vinyl ether					
32. Acrolein					

ADDITIONAL

Notes: 1. Samples analyzed with a Century Systems model OVA-128 portable organic vapor analyzer (portable GC)

* concentration approximately 100-500 ppb

** concentration approximately 1000-500,000 ppb

COMPANY PRIVATE

THE ARO CORPORATION
BUFFALO DIVISION
3695 BROADWAY, BUFFALO, N.Y. 14227

TELEPHONE 716-683-0440
TELEX 9-1250

ANALYTICAL RESULTS

Customer: GOLDBERG ZOINO ASSOCIATES Rand Bldg, Buffalo, New York

DATE: COLLECTED: ? RECEIVED: 9/2/82 COMPLETED: 9/3/82

P.O. NO. 5007 ARO W.O. 20,571W-5549

TEST	Water Sample				
Free Ammonia	0.64ppm				
Kjeldahl Nitrogen	0.78ppm				
Nitrates	8.45mg/L				
Total Organic Carbon (TOC)	2.1mg/L				

Bernard J. Grycza

Bernard J. Grycza, Ph.D.
Director, Environmental Laboratory

COMPANY PRIVATE

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

NATIONAL ENFORCEMENT INVESTIGATIONS CEN
Building 53, Box 25227, Denver Federal Center
Denver, Colorado 80225

Proj. No.	Project Name
R3336	Bell Aerospace/Textron Geohydrologic Studies (Neutralization Pond)

SAMPLERS: *(Signature)* R. Kampff / Raymond Laport

STA. NO.	SEQ NO	DATE	TIME	STATION LOCATION	1. General Inorganics	2. Metals	3. Nutrients	4. Oil & Grease	5. Phenolics	6. Cyanide	7. Organic Characterization	8. Volatile Organics	9. General Organics	10. Tracer	11. Solids - Inorganics	12. Solids - Organics	13. Biol - Inorganics	14. Biol - Organics	15. Source Filter	16. Probe Wash	17. Impinger Catch	18. Ambient Filter	19. Solid Adsorbent	20. Ambient Impinger	21. Benthos	22. Bacteriology	23. Plankton	24. Chlorophyll	25. Pathogenic Bacteria	26.	27.	28.	NUMBER OF CONTAINERS	Remarks
		9/1/82	15³⁰	Neut Pond									X																				2	

TOTAL NO. OF CONTAINERS:

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Raymond Laport	9/2/82 11³⁰	R. L. Tisdale			
Relinquished by: *(Signature)*	**Date/Time**	**Received by:** *(Signature)*	**Relinquished by:** *(Signature)*	**Date/Time**	**Received by Courier** *(Signature)*
Relinquished by Courier *(Signature)*	**Date/Time**	**Received by Mobile Lab** *(Signature)*	**Relinquished by Mobile Lab** *(Signature)*	**Date/Time**	**Received by Courier** *(Signature)*

Method of Shipment:	Shipped by: *(Signature)*	Courier from Airport *(Signature)*	Received for Laboratory by: *(Signature)*	Date/Time
			R. L. Tisdale	9/2/82 11:19 A.M.

II-16 (6/78)

COMPANY PRIVATE

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

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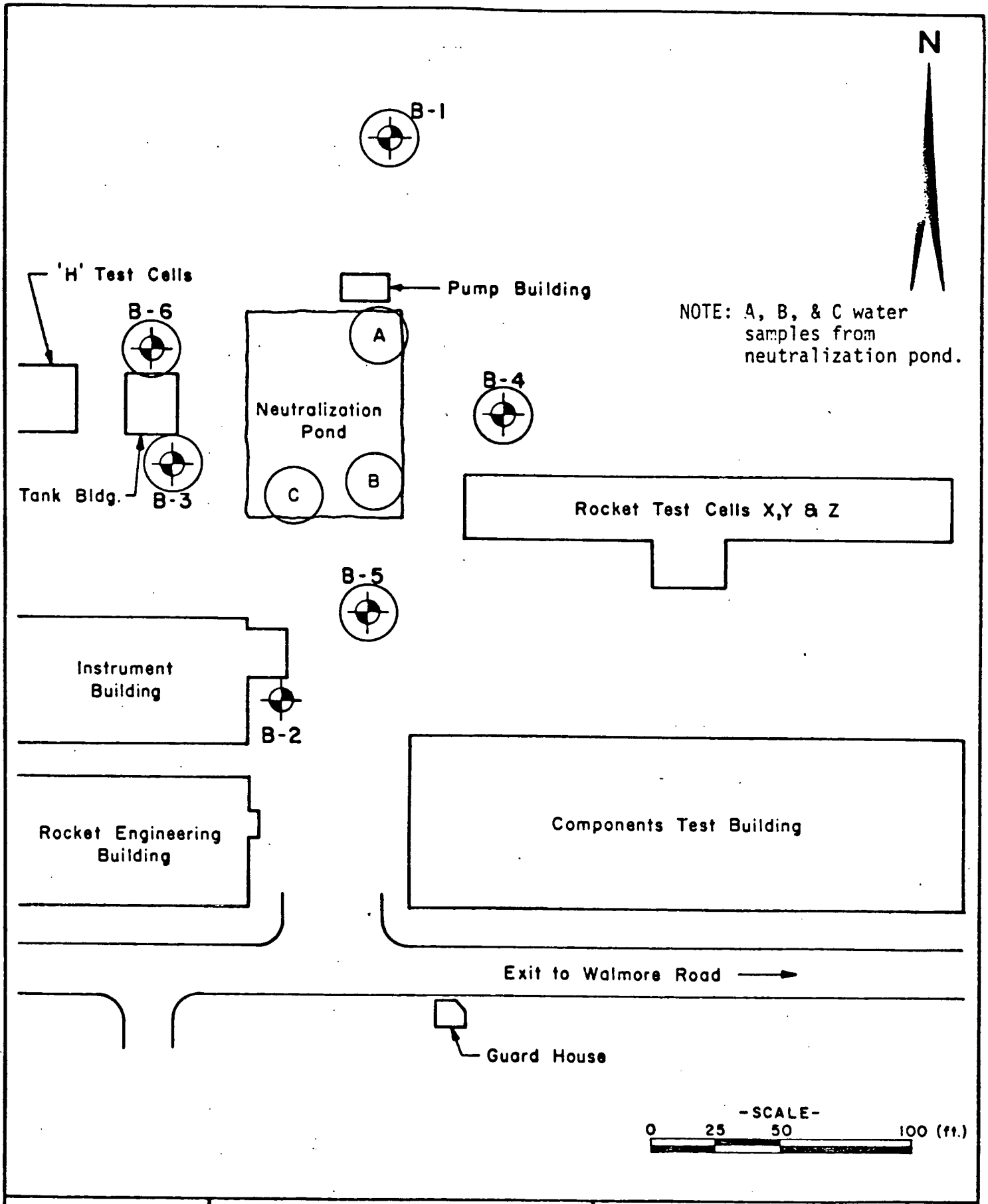
PURGEABLE ORGANIC ANALYSIS RESULTS

	Sample No.	LS-2A
	Laboratory	ERCO
	Analysis by	Headspace GC
COMPOUNDS	Sampling Date	9/1/82
1. Chloromethane		
2. Bromomethane		
3. Dichlorodifluoromethane		1000*
4. Vinyl chloride		
5. Chloroethane		
6. Methylene chloride		2600
7. Acrylonitrile		
8. Trichlorofluoromethane		
9. 1,1-dichloroethylene		
10. 1,1-dichloroethane		
11. Trans-1,2-dichloroethylene		6300
12. Chloroform		1700
13. 1,2-dichloroethane		
14. 1,1,1-trichloroethane		
15. Carbon tetrachloride		
16. Bromodichloromethane		
17. 1,2-dichloropropane		
18. Trans-1,3-dichloropropylene		
19. Trichloroethylene		250,000
Benzene		
Dibromochloromethane		
22. Cis-1,3-dichloropropylene		
23. 1,1,2-trichloroethane		
24. Bromoform		
25. 1,1,2,2-tetrachloroethane		
26. Tetrachloroethylene		
27. Toluene		
28. Chlorobenzene		
29. Ethyl benzene		
30. Bis-chloromethyl ether		
31. 2-chloroethyl vinyl ether		
32. Acrolein		

ADDITIONAL

NOTES: 1) **All results in parts per billion (ppb).**
2) LS-2A - Lagoon Sludge
3) ERCO - Energy Resource Co., Inc., Cambridge, Ma.
4) Headspace GC - elevated temperature headspace gas chromatography
5) * Vinyl chloride and dichlorodifluoromethane elute simultaneously.



FILE No. R3336 DWG. No. GH-7-A

GZA

GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

9/14/82: SAMPLING LOCATIONS

DEC. 1982

COMPANY PRIVATE

THE ARO CORPORATION
BUFFALO DIVISION
3695 BROADWAY, BUFFALO, N.Y. 14227

TELEPHONE 716-683-0440
TELEX 9-1250

ANALYTICAL RESULTS

Customer: ATTN: Raymond Laport
GOLDBERG ZOINO ASSOCIATES Rand Bldg, Suite 1000, Buffalo, N.Y.

DATE: COLLECTED: ? RECEIVED: 9/14/82 COMPLETED: 9/22/82

P.O. NO. ARO W.O. 20,585W-5589-94

TEST	Nitrate (as N) ppm	Chemical Oxygen Demand, mg/L			
Pond (B)	3.56	18.7			
B-1	.60	47.3			
B-3	4.35	189.			
B-4	75.8	1393.			
B-5	1.04	3.7			
B-6	15.1	138.			

Bernard J. Gruzza

Bernard J. Gruzza, Ph.D.
Director, Environmental Laboratory

COMPANY PRIVATE

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

NATIONAL ENFORCEMENT INVESTIGATIONS CEN
Building 53, Box 25227, Denver Federal Center
Denver, Colorado 80225

Proj. No. 8336 | Project Name: Bell Aerospace Textron

SAMPLERS: (Signature) Raymond Lippert / Susan E Pitney

STA. NO.	SEQ NO	DATE	TIME	STATION LOCATION	SAMPLE TYPE	NUMBER OF CONTAINERS	Remarks
B-1		9/14/82	1130	Bell Aerospace		1	nitrates & COD
B-3		"	1200	"		1	
B-4		"	1110	"		1	
B-5		"	1140	"		1	
B-6		"	1225	"		1	
Grab		"	1240	"			
					TOTAL NO. OF CONTAINERS		

SAMPLE TYPE: 1. General Inorganics; 2. Metals; 3. Nutrients; 4. Oil & Grease; 5. Phenolics; 6. Cyanide; 7. Organic Characterization; 8. Volatile Organics; 9. General Organics; 10. Tracer; 11. Solids - Inorganics; 12. Solids - Organics; 13. Biol - Inorganics; 14. Biol - Organics; 15. Source Filter; 16. Probe Wash; 17. Impinger Catch; 18. Ambient Filter; 19. Solid Adsorbent; 20. Ambient Impinger; 21. Benthos; 22. Bacteriology; 23. Plankton; 24. Chlorophyll; 25. Pathogenic Bacteria; 26.; 27.; 28.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Raymond Lippert	9/14/82 1430	R. L. Tisdale			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by Courier (Signature)
Relinquished by Courier (Signature)	Date/Time	Received by Mobile Lab (Signature)	Relinquished by Mobile Lab (Signature)	Date/Time	Received by Courier (Signature)
Method of Shipment:		Shipped by: (Signature)	Courier from Airport (Signature)	Received for Laboratory by: (Signature) R. L. Tisdale	Date/Time 9/14/82 2:50 PM

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

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II-16 (6/78)

COMPANY PRIVATE

PRELIMINARY

PORTABLE GC SCREENING RESULTS

PURGEABLE ORGANIC ANALYSIS RESULTS

COMPOUNDS	Sample No.	B-1	B-3	B-4	B-5
	Laboratory	GZA	GZA	GZA	GZA
	Analysis by	Portable GC	Portable GC	Portable GC	Portable GC
	Sampling Date	9-14-82	9-14-82	9-14-82	9-14-82
1. Chloromethane					
2. Bromomethane					
3. Dichlorodifluoromethane		≃100	≃1000	≃500	≃100
4. Vinyl chloride					
5. Chloroethane					
6. Methylene chloride		≃100	>100,000*	>100,000*	≃4,000
7. Acrylonitrile					
8. Trichlorofluoromethane					
9. 1,1-dichloroethylene					
10. 1,1-dichloroethane					
11. Trans-1,2-dichloroethylene					
12. Chloroform					
13. 1,2-dichloroethane					
14. 1,1,1-trichloroethane					
15. Carbon tetrachloride					
16. Bromodichloromethane					
17. 1,2-dichloropropane					
18. Trans-1,3-dichloropropylene					
19. Trichloroethylene		≃80,000	>100,000*	>100,000*	≃100
Benzene					
Dibromochloromethane					
22. Cis-1,3-dichloropropylene					
23. 1,1,2-trichloroethane					
24. Bromoform					
25. 1,1,2,2-tetrachloroethane					
26. Tetrachloroethylene					
27. Toluene					
28. Chlorobenzene					
29. Ethyl benzene					
30. Bis-chloromethyl ether					
31. 2-chloroethyl vinyl ether					
32. Acrolein					

ADDITIONAL

Notes: 1. Samples analyzed with a Century Systems model OVA-128 portable organic vapor analyzer (portable GC)

2. All results in parts per billion (ppb)

* Peaks eluted simultaneously resolution impossible

COMPANY PRIVATE

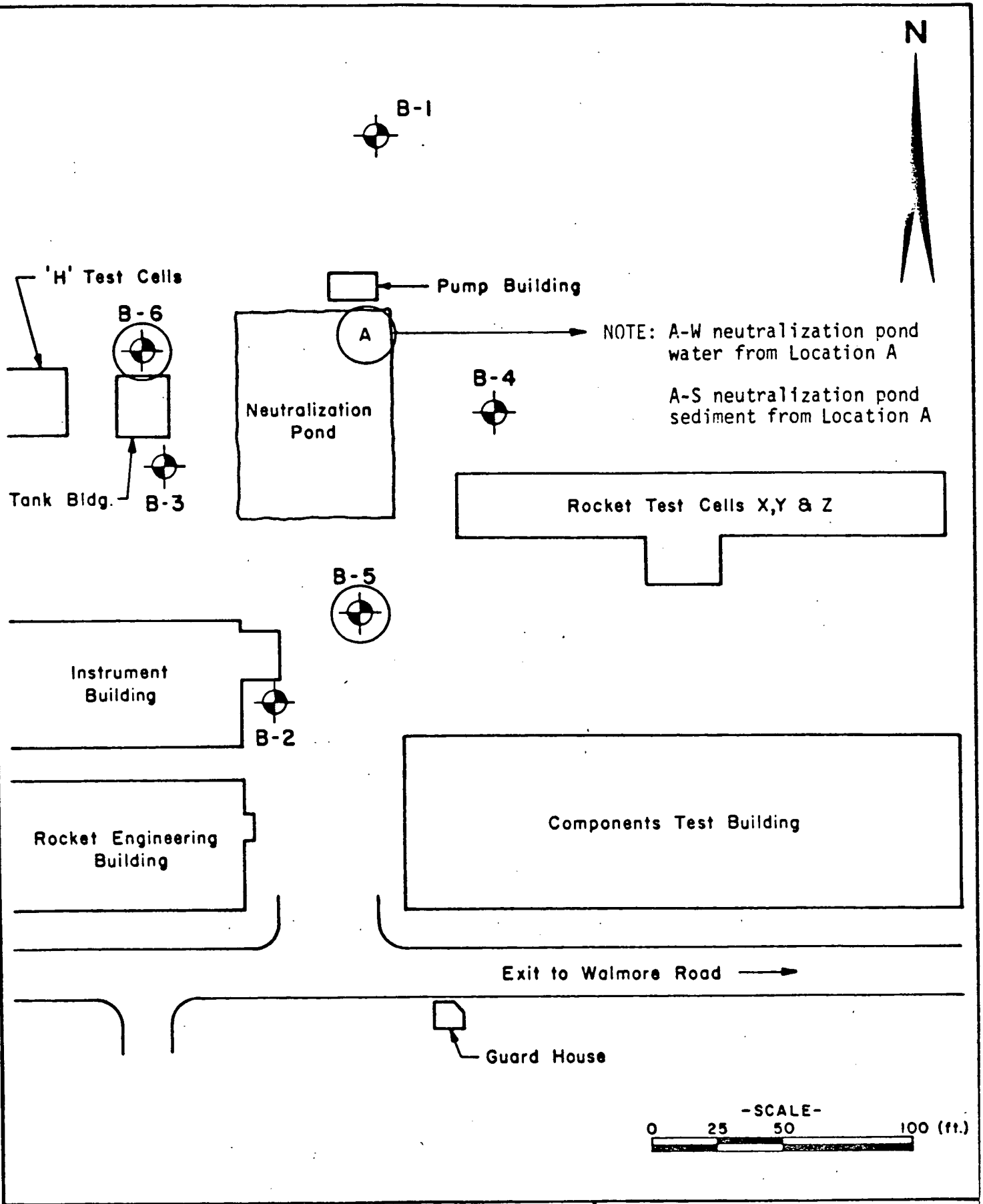
PRELIMINARY

PORTABLE GC SCREENING RESULTS

PURGEABLE ORGANIC ANALYSIS RESULTS

	Sample No.	B-6	Pond Water		
	Laboratory	GZA	GZA		
	Analysis by	Portable GC	Portable GC		
COMPOUNDS	Sampling Date	9-14-82	9-14-82		
1. Chloromethane					
2. Bromomethane					
3. Dichlorodifluoromethane		>100,000	≈1,800		
4. Vinyl chloride					
5. Chloroethane					
6. Methylene chloride		75,000	≈900		
7. Acrylonitrile					
8. Trichlorofluoromethane					
9. 1,1-dichloroethylene					
10. 1,1-dichloroethane					
11. Trans-1,2-dichloroethylene					
12. Chloroform					
13. 1,2-dichloroethane					
14. 1,1,1-trichloroethane					
15. Carbon tetrachloride					
16. Bromodichloromethane					
17. 1,2-dichloropropane					
18. Trans-1,3-dichloropropylene					
19. Trichloroethylene		>100,000	≈3,000		
Benzene					
Dibromochloromethane					
22. Cis-1,3-dichloropropylene					
23. 1,1,2-trichloroethane					
24. Bromoform					
25. 1,1,2,2-tetrachloroethane					
26. Tetrachloroethylene					
27. Toluene					
28. Chlorobenzene					
29. Ethyl benzene					
30. Bis-chloromethyl ether					
31. 2-chloroethyl vinyl ether					
32. Acrolein					

ADDITIONAL



FILE No. R3336 DWG. No. GH-6-A

GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

10/28/82: SAMPLING LOCATIONS

DEC. 1982

COMPANY PRIVATE

PURGEABLE ORGANIC ANALYSIS RESULTS

COMPOUNDS	Sample No.	B5-001		B5-001	
	Laboratory	AES	Detection	RECRA	Detection
	Analysis by	GC/MS	Limits	GC/MS	Limits
	Sampling Date	10-28-82		10-28-82	
1. Chloromethane		BDL	10	ND	10
2. Bromomethane		BDL	10	ND	10
3. Dichlorodifluoromethane		BDL	10		
4. Vinyl chloride		33	10	35	10
5. Chloroethane		BDL	10	ND	10
6. Methylene chloride			10		2.8
7. Acrylonitrile			100		400
8. Trichlorofluoromethane			10		10
9. 1,1-dichloroethylene				BMDL	2.8
10. 1,1-dichloroethane				ND	4.7
11. Trans-1,2-dichloroethylene		28	10	31	1.6
12. Chloroform		BDL		ND	1.6
13. 1,2-dichloroethane					2.8
14. 1,1,1-trichloroethane					3.8
15. Carbon tetrachloride					2.8
16. Bromodichloromethane					2.2
17. 1,2-dichloropropane					6.0
18. Trans-1,3-dichloropropylene					5.0
19. Trichloroethylene				5.6	1.9
Benzene				ND	4.4
Dibromochloromethane					3.1
22. Cis-1,3-dichloropropylene					10
23. 1,1,2-trichloroethane					5.0
24. Bromoform					4.7
25. 1,1,2,2-tetrachloroethane					6.9
26. Tetrachloroethylene					4.1
27. Toluene				BMDL	6.0
28. Chlorobenzene				ND	6.0
29. Ethyl benzene					7.2
30. Bis-chloromethyl ether					
31. 2-chloroethyl vinyl ether					10
32. Acrolein			100		400

BDL = below detection limits

ND = not detected
BMDL = compound present in amount less than detection limit

Note: All results reported as μ g/l (ppb)

COMPANY PRIVATE

B-6
10-28-82 Sampling Round

PURGEABLE ORGANIC ANALYSIS RESULTS

COMPOUNDS	Sample No.	B6-002	Detection Limits	B6-002	Detection Limits
	Laboratory	AES		RECRA	
	Analysis by	GC/MS		GC/MS	
	Sampling Date	10-28-82		10-28-82	
1. Chloromethane		BDL	10	ND	10
2. Bromomethane		BDL		ND	10
3. Dichlorodifluoromethane		BDL			
4. Vinyl chloride		570		760	10
5. Chloroethane		BDL		ND	10
6. Methylene chloride		110,000		140,000	2.8
7. Acrylonitrile		BDL	100	ND	8,000
8. Trichlorofluoromethane		20,000	10	10,000	10
9. 1,1-dichloroethylene		240		310	2.8
10. 1,1-dichloroethane		130		150	4.7
11. Trans-1,2-dichloroethylene		12,000		16,000	1.6
12. Chloroform		820		1,000	1.6
13. 1,2-dichloroethane		BDL		20	2.8
14. 1,1,1-trichloroethane		670		590	3.8
15. Carbon tetrachloride		BDL		ND	2.8
16. Bromodichloromethane		BDL		ND	2.2
17. 1,2-dichloropropane		BDL		ND	6.0
18. Trans-1,3-dichloropropylene		20		35	5.0
19. Trichloroethylene		400,000		440,000	1.9
. Benzene		21		110	18
--. Dibromochloromethane		BDL		ND	12.4
22. Cis-1,3-dichloropropylene					40
23. 1,1,2-trichloroethane					20
24. Bromoform					4.7
25. 1,1,2,2-tetrachloroethane					6.9
26. Tetrachloroethylene		13		63	4.1
27. Toluene		47		84	6.0
28. Chlorobenzene		BDL		ND	6.0
29. Ethyl benzene		14		39	7.2
30. Bis-chloromethyl ether		BDL			
31. 2-chloroethyl vinyl ether		BDL		ND	10
32. Acrolein		BDL	100	ND	8,000

BDL = below detection limits ND - not detected

Note: all results reported as µ g/l (ppb)

COMPANY PRIVATE

Neutralization Pond Water
10-28-82 Sampling Round

PURGEABLE ORGANIC ANALYSIS RESULTS

COMPOUNDS	Sample No.	AW-003		AW-003	
	Laboratory	AES	Detection	RECRA	Detection
	Analysis by	GC/MS	Limits	GC/MS	Limits
	Sampling Date	10-28-82		10-28-82	
1. Chloromethane		BDL	1,000	ND	10
2. Bromomethane		BDL		ND	10
3. Dichlorodifluoromethane		BDL			
4. Vinyl chloride		BDL		BMDL	10
5. Chloroethane		BDL		ND	10
6. Methylene chloride		1,600		1,600	2.8
7. Acrylonitrile		BDL	10,000	ND	400
8. Trichlorofluoromethane			1,000	66	10
9. 1,1-dichloroethylene				ND	2.8
10. 1,1-dichloroethane				ND	4.7
11. Trans-1,2-dichloroethylene				93	1.6
12. Chloroform				2.1	1.6
13. 1,2-dichloroethane				ND	2.8
14. 1,1,1-trichloroethane				7.5	3.8
15. Carbon tetrachloride				ND	2.8
16. Bromodichloromethane				ND	2.2
17. 1,2-dichloropropane				ND	6.0
18. Trans-1,3-dichloropropylene				ND	5.0
19. Trichloroethylene				120	5.6
. Benzene				ND	4.4
--. Dibromochloromethane				BMDL	3.1
22. Cis-1,3-dichloropropylene				ND	10
23. 1,1,2-trichloroethane					5.0
24. Bromoform					4.7
25. 1,1,2,2-tetrachloroethane					6.9
26. Tetrachloroethylene					4.1
27. Toluene					6.0
28. Chlorobenzene					6.0
29. Ethyl benzene					7.2
30. Bis-chloromethyl ether					
31. 2-chloroethyl vinyl ether				ND	10
32. Acrolein		BDL	10,000	ND	400

BDL - below detection limit

ND - not detected
BMDL = compound present in amount less then detection limit

Note: All results reported as μ g/l (ppb)

COMPANY PRIVATE

[redacted]

Neutralization Pond Bottom Sediment
10-28-82 Sampling Round

PURGEABLE ORGANIC ANALYSIS RESULTS

COMPOUNDS	Sample No.	AS-004		AS-004	
	Laboratory	AES	Detection	RECRA	Detection
	Analysis by	GC/MS	Limits	GC/MS	Limits
	Sampling Date	10-28-82		10-28-82	
1. Chloromethane		BDL	500	ND	5.5
2. Bromomethane		BDL		ND	5.5
3. Dichlorodifluoromethane		BDL			
4. Vinyl chloride		2,700		5,300*	5.5
5. Chloroethane		BDL		ND	5.5
6. Methylene chloride		1,400		ND	5.5
7. Acrylonitrile		BDL	5,000	ND	200
8. Trichlorofluoromethane		BDL	500	BMDL	5.5
9. 1,1-dichloroethylene		BDL		6.3*	
10. 1,1-dichloroethane		BDL		80*	
11. Trans-1,2-dichloroethylene		13,000		8,900*	
12. Chloroform		BDL		ND	
13. 1,2-dichloroethane		BDL		ND	
14. 1,1,1-trichloroethane		690		72*	
15. Carbon tetrachloride		BDL		ND	
16. Bromodichloromethane		BDL			
17. 1,2-dichloropropane		BDL			
18. Trans-1,3-dichloropropylene		BDL			
19. Trichloroethylene		6,300		32*	
Benzene		BDL		12*	
Dibromochloromethane				ND	
22. Cis-1,3-dichloropropylene					
23. 1,1,2-trichloroethane					
24. Bromoform					
25. 1,1,2,2-tetrachloroethane					
26. Tetrachloroethylene					
27. Toluene				9.6*	5.5
28. Chlorobenzene					
29. Ethyl benzene				ND	5.5
30. Bis-chloromethyl ether					
31. 2-chloroethyl vinyl ether				ND	5.5
32. Acrolein		BDL	5,000	ND	200

BDL = below detection limit
results in µg/l (ppb)

ND = not detected
BMDL = compound present in amount less than detection limit
* µg/Kg wet

RECRA ENVIRONMENTAL LABORATORIES

Division of Recra Research, Inc.

ANALYTICAL

REPORT

4248 Ridge Lea Road, Amherst, New York 14226

Telephone Sales (716) 838-6200
Laboratory (716) 692-7620

RECRA ENVIRONMENTAL LABORATORIES
Division of Recra Research, Inc.

ANALYTICAL REPORT

BELL AEROSPACE TEXTRON
PRIORITY POLLUTANT ANALYSES

Prepared For:

Bell Aerospace Textron
P.O. Box 1
Mail Zone B-21
Buffalo, NY 14240

Prepared By:

Recra Environmental Laboratories
4248 Ridge Lea Road
Amherst, NY 14226

Report Date: December 6, 1982

ANALYTICAL REPORT

BELL AEROSPACE TEXTRON
PRIORITY POLLUTANT ANALYSES

Report Date: 12/6/82

INTRODUCTION:

On October 28, 1982 samples were received at Recra Environmental Laboratories. A request was made by Bell Aerospace Textron to have the samples analyzed for selected fractions of the Environmental Protection Agency decreed priority pollutants.

This report will address the results of those analyses.

METHODS:

Priority pollutant analyses were conducted according to Environmental Protection Agency (EPA) methodologies.

Organic priority pollutants are analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).

RESULTS AND DISCUSSION:

Results of the requested analyses are listed in Tables I through III. Table IV was generated via standard quality control procedures.

Some detection limits for Sample B-6 are elevated due to sample interferences. Compounds of interest were not detected in the Volatile field blank.

RESULTS AND DISCUSSION (cont'd.):

Compounds reported as ND are "not detected". Compounds reported as BMDL are present "below method detection limit".

Respectfully Submitted,

RECRA ENVIRONMENTAL LABORATORIES

Timothy R Baker

Timothy R. Baker
GC/MS Specialist
Laboratory Supervisor

TRB/skb

TABLE I

BELL AEROSPACE TEXTRON
GAS CHROMATOGRAPHY/MASS SPECTROMETRY
PRIORITY POLLUTANT ANALYSES

Report Date: 12/6/82

VOLATILES

PARAMETER	METHOD DETECTION LIMITS (µg/l)	SAMPLE IDENTIFICATION	
		AW	B5
acrolein	400	ND	ND
acrylonitrile	400	ND	ND
benzene	4.4	ND	ND
bromodichloromethane	2.2	ND	ND
bromoform	4.7	ND	ND
bromomethane	10	ND	ND
carbon tetrachloride	2.8	ND	ND
chlorobenzene	6.0	ND	ND
chloroethane	10	ND	ND
2-chloroethylvinyl ether	10	ND	ND
chloroform	1.6	2.1 µg/l	ND
chloromethane	10	ND	ND
dibromochloromethane	3.1	BMDL	ND
1,1-dichloroethane	4.7	ND	ND
1,2-dichloroethane	2.8	ND	ND
1,1-dichloroethylene	2.8	ND	BMDL
trans-1,2-dichloroethylene	1.6	93 µg/l	31 µg/l
1,2-dichloropropane	6.0	ND	ND
cis-1,3-dichloropropene	10	ND	ND
trans-1,3-dichloropropene	5.0	ND	ND
ethylbenzene	7.2	ND	ND
methylene chloride	2.8	1,600 µg/l	ND

(Continued)

TABLE I (cont'd.)

BELL AEROSPACE TEXTRON
GAS CHROMATOGRAPHY/MASS SPECTROMETRY
PRIORITY POLLUTANT ANALYSES

Report Date: 12/6/82

VOLATILES

PARAMETER	METHOD DETECTION LIMITS (µg/l)	SAMPLE IDENTIFICATION	
		AW	B5
1,1,2,2-tetrachloroethane	6.9	ND	ND
tetrachloroethylene	4.1	ND	ND
toluene	6.0	ND	BMDL
1,1,1-trichloroethane	3.8	7.5 µg/l	ND
1,1,2-trichloroethane	5.0	ND	ND
trichloroethylene	1.9	120 µg/l	5.6 µg/l
trichlorofluoromethane	10	66 µg/l	ND
vinyl chloride	10	BMDL	35 µg/l

COMMENTS: Refer to text

FOR RECRA ENVIRONMENTAL LABORATORIES Timothy R Bates

DATE 12/6/82

RECRA ENVIRONMENTAL LABORATORIES
T.D. #82-1062

COMPANY PRIVATE

TABLE II

BELL AEROSPACE TEXTRON
GAS CHROMATOGRAPHY/MASS SPECTROMETRY
PRIORITY POLLUTANT ANALYSES

Report Date: 12/6/82

VOLATILES

PARAMETER	METHOD DETECTION LIMITS (µg/l)	SAMPLE IDENTIFICATION B-6
acrolein	8,000	ND
acrylonitrile	8,000	ND
benzene	18	110 µg/l
bromodichloromethane	2.2	ND
bromoform	4.7	ND
bromomethane	10	ND
carbon tetrachloride	2.8	ND
chlorobenzene	6.0	ND
chloroethane	10	ND
2-chloroethylvinyl ether	10	ND
chloroform	1.6	1,000 µg/l
chloromethane	10	ND
dibromochloromethane	12.4	ND
1,1-dichloroethane	4.7	150 µg/l
1,2-dichloroethane	2.8	20 µg/l
1,1-dichloroethylene	2.8	310 µg/l
trans-1,2-dichloroethylene	1.6	16,000 µg/l
1,2-dichloropropane	6.0	ND
cis-1,3-dichloropropene	40	ND
trans-1,3-dichloropropene	5.0	35 µg/l
ethylbenzene	7.2	39 µg/l
methylene chloride	2.8	140,000 µg/l

(Continued)

TABLE II (cont'd.)

BELL AEROSPACE TEXTRON
GAS CHROMATOGRAPHY/MASS SPECTROMETRY
PRIORITY POLLUTANT ANALYSES

Report Date: 12/6/82

VOLATILES

PARAMETER	METHOD DETECTION LIMITS (µg/l)	SAMPLE IDENTIFICATION B-6
1,1,2,2-tetrachloroethane	6.9	ND
tetrachloroethylene	4.1	63 µg/l
toluene	6.0	84 µg/l
1,1,1-trichloroethane	3.8	590 µg/l
1,1,2-trichloroethane	20	ND
trichloroethylene	1.9	440,000 µg/l
trichlorofluoromethane	10	10,000 µg/l
vinyl chloride	10	760 µg/l

COMMENTS: Refer to text

FOR RECRA ENVIRONMENTAL LABORATORIES Timothy R Baker

DATE 12/6/82

TABLE III

BELL AEROSPACE TEXTRON
GAS CHROMATOGRAPHY/MASS SPECTROMETRY
PRIORITY POLLUTANT ANALYSES

Report Date: 12/6/82

VOLATILES

PARAMETER	METHOD DETECTION LIMITS (µg/kg wet)	SAMPLE IDENTIFICATION AS-004
acrolein	200	ND
acrylonitrile	200	ND
benzene	5.5	12 µg/kg wet
bromodichloromethane	5.5	ND
bromoform	5.5	ND
bromomethane	5.5	ND
carbon tetrachloride	5.5	ND
chlorobenzene	5.5	ND
chloroethane	5.5	ND
2-chloroethylvinyl ether	5.5	ND
chloroform	5.5	ND
chloromethane	5.5	ND
dibromochloromethane	5.5	ND
1,1-dichloroethane	5.5	80 µg/kg wet
1,2-dichloroethane	5.5	ND
1,1-dichloroethylene	5.5	6.3 µg/kg wet
trans-1,2-dichloroethylene	5.5	8,900 µg/kg wet
1,2-dichloropropane	5.5	ND
cis-1,3-dichloropropene	5.5	ND
trans-1,3-dichloropropene	5.5	ND
ethylbenzene	5.5	ND
methylene chloride	5.5	ND

(Continued)

TABLE III (cont'd.)

BELL AEROSPACE TEXTRON
GAS CHROMATOGRAPHY/MASS SPECTROMETRY
PRIORITY POLLUTANT ANALYSES

Report Date: 12/6/82

VOLATILES

PARAMETER	METHOD DETECTION LIMITS (µg/kg wet)	SAMPLE IDENTIFICATION AS-004
1,1,2,2-tetrachloroethane	5.5	ND
tetrachloroethylene	5.5	ND
toluene	5.5	9.6 µg/kg wet
1,1,1-trichloroethane	5.5	72 µg/kg wet
1,1,2-trichloroethane	5.5	ND
trichloroethylene	5.5	32 µg/kg wet
trichlorofluoromethane	5.5	BMDL
vinyl chloride	5.5	5,300 µg/kg wet

COMMENTS: Refer to text

FOR RECRA ENVIRONMENTAL LABORATORIES Timothy R Biber

DATE 12/6/82

RECRA ENVIRONMENTAL LABORATORIES

COMPANY PRIVATE

TABLE IV

BELL AEROSPACE TEXTRON
GAS CHROMATOGRAPHY/MASS SPECTROMETRY
PRIORITY POLLUTANT ANALYSES
QUALITY CONTROL

Report Date: 12/6/82

REPLICATE VOLATILE ANALYSIS OF
SAMPLE B-5

COMPOUND IDENTIFICATION	UNITS OF MEASURE	VALUE 1	VALUE 2	MEAN	STANDARD DEVIATION	PERCENT COEFFICIENT OF VARIATION
1,1-dichloroethylene	µg/l	3.7	1.2	2.4	1.7	70
trans-1,2-dichloroethylene	µg/l	33	29	31	2.8	9.0
toluene	µg/l	4.4	1.8	3.1	1.8	58
trichloroethylene	µg/l	7.5	3.6	5.6	2.7	48
vinyl chloride	µg/l	35	35	35	0	0

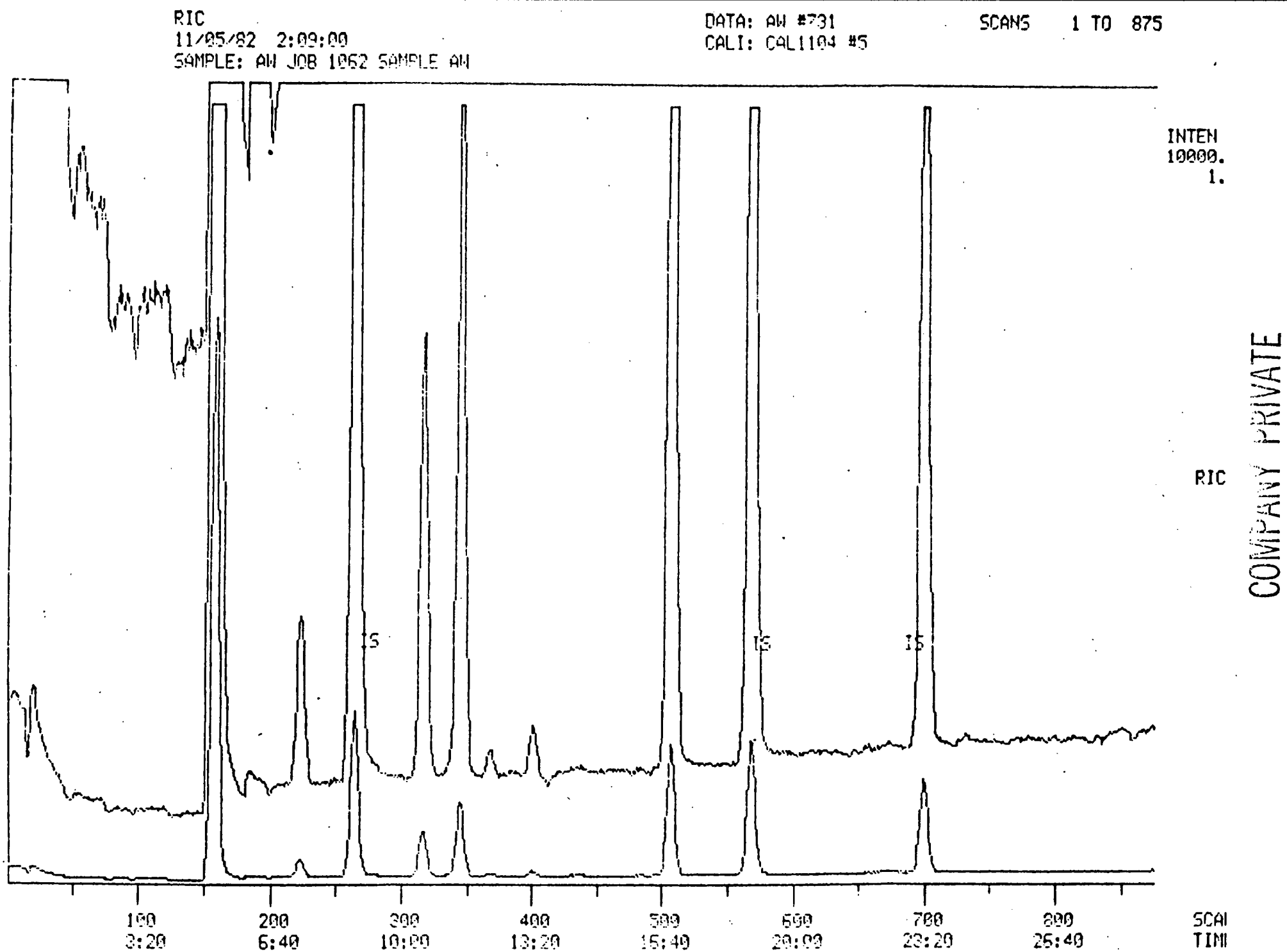
COMMENTS: Refer to text

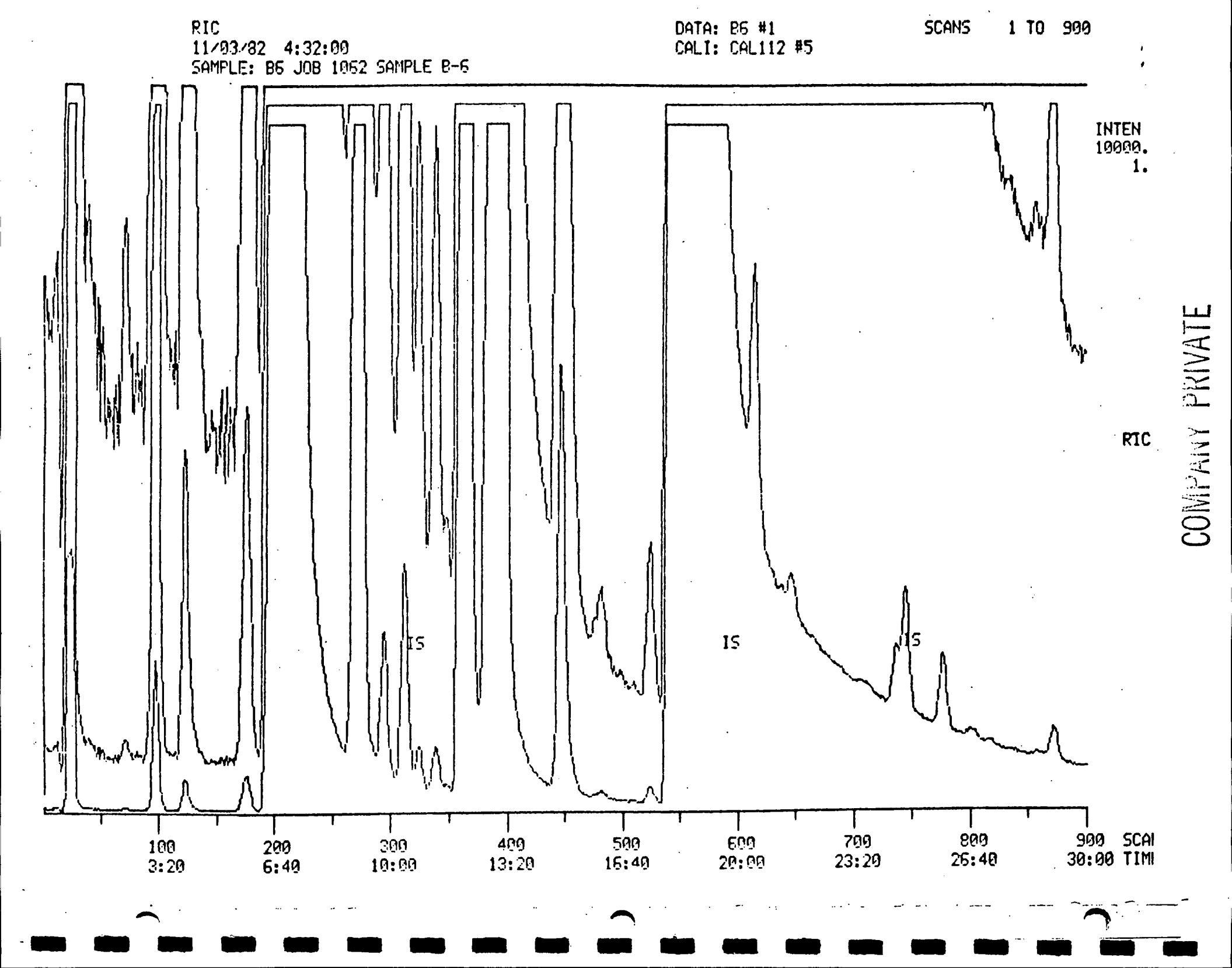
FOR RECRA ENVIRONMENTAL LABORATORIES Timothy R Bibler

DATE 12/6/82

RECRA ENVIRONMENTAL LABORATORIES

COMPANY PRIVATE

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1.
RIC
IS
IS
IS
100
3:20
200
6:40
300
10:00
400
13:20
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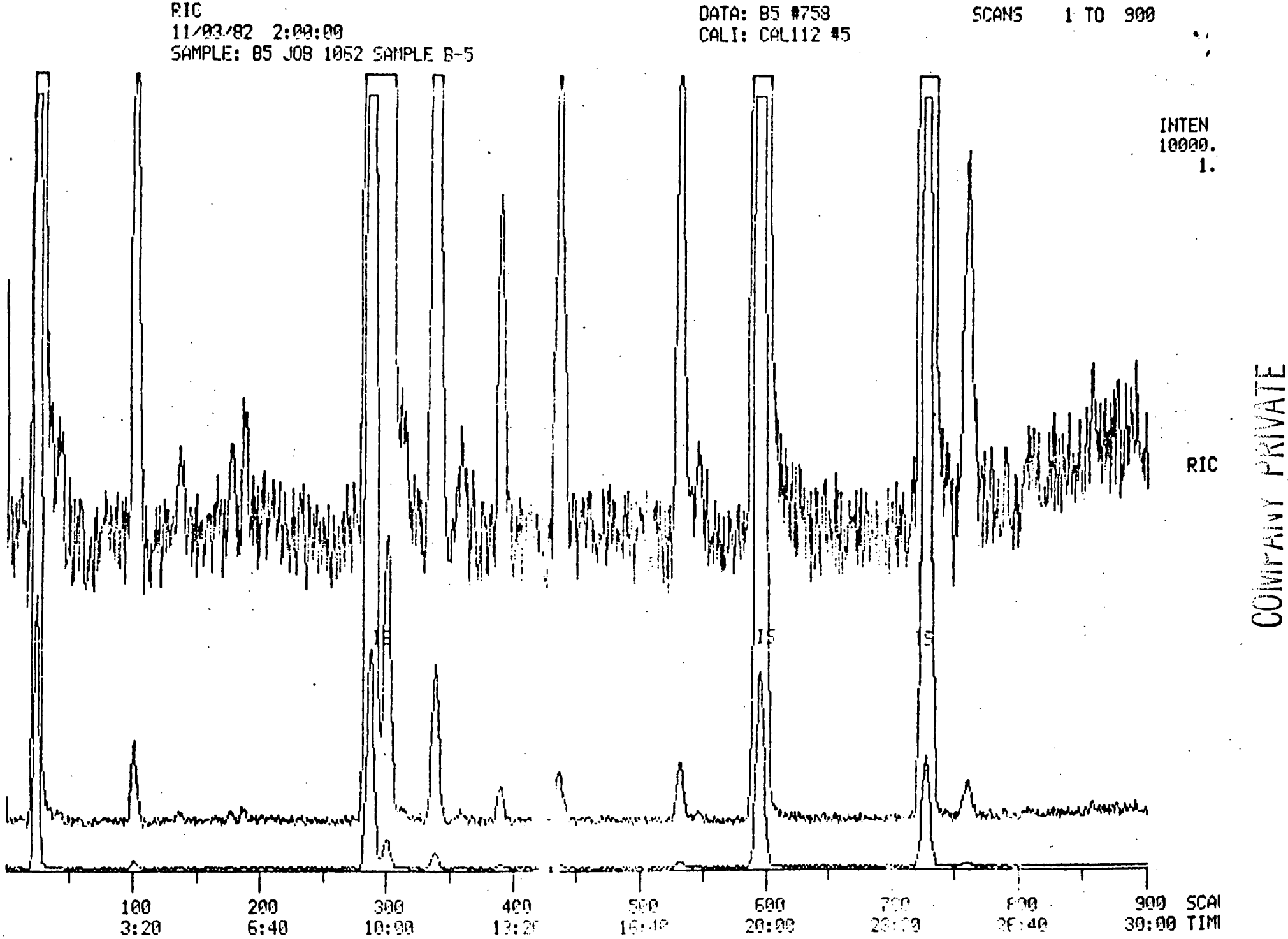
COMPANY PRIVATE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DATA: B5 #758
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10000.
1.
RIC
100
3:20
200
6:40
300
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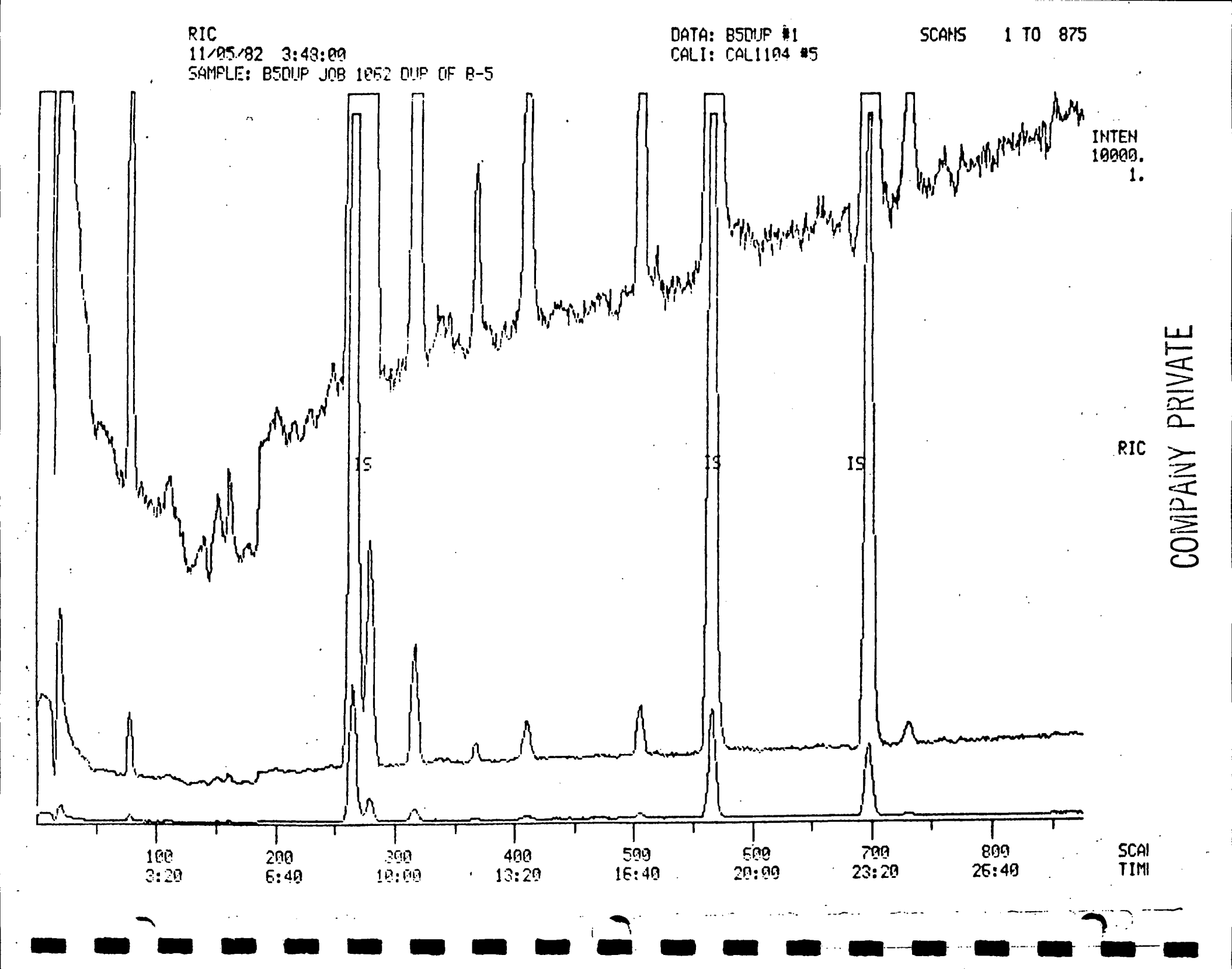
900
30:00
SCAN
TIME
COMPANY PRIVATE


RIC
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SAMPLE: B5DUP JOB 1052 DUP OF B-5
DATA: B5DUP #1
CALI: CAL1104 #5
SCANS 1 TO 875
INTEN
10000.
1.
IS
IS
IS
RIC
COMPANY PRIVATE
100
3:20
200
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300
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400
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SCAI
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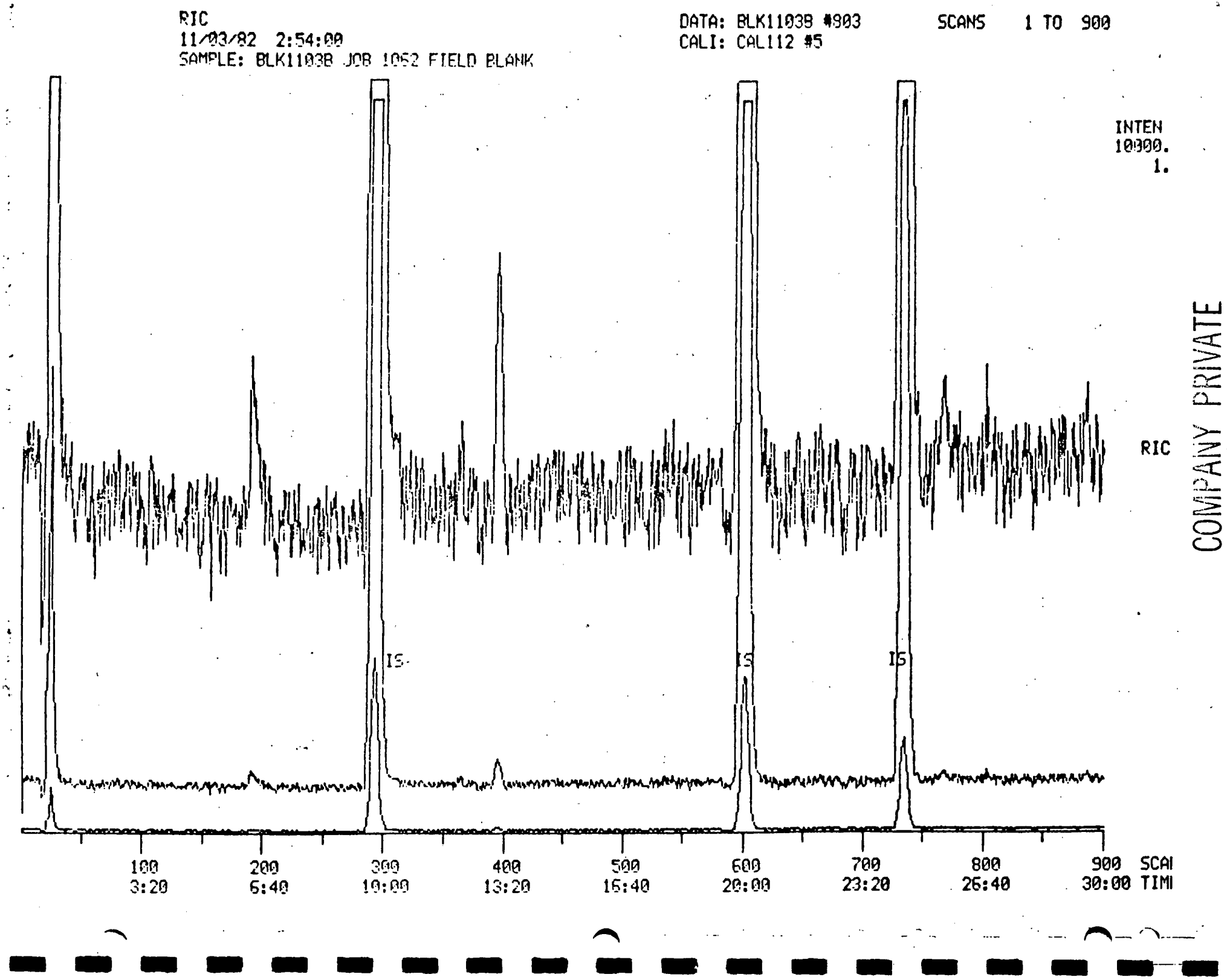
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DATA: BLK1103B #903
CALI: CAL112 #5
SCANS 1 TO 900
INTEN
10000.
1.
RIC
IS
IS
IS
COMPANY PRIVATE
100
3:20
200
6:40
300
10:00
400
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500
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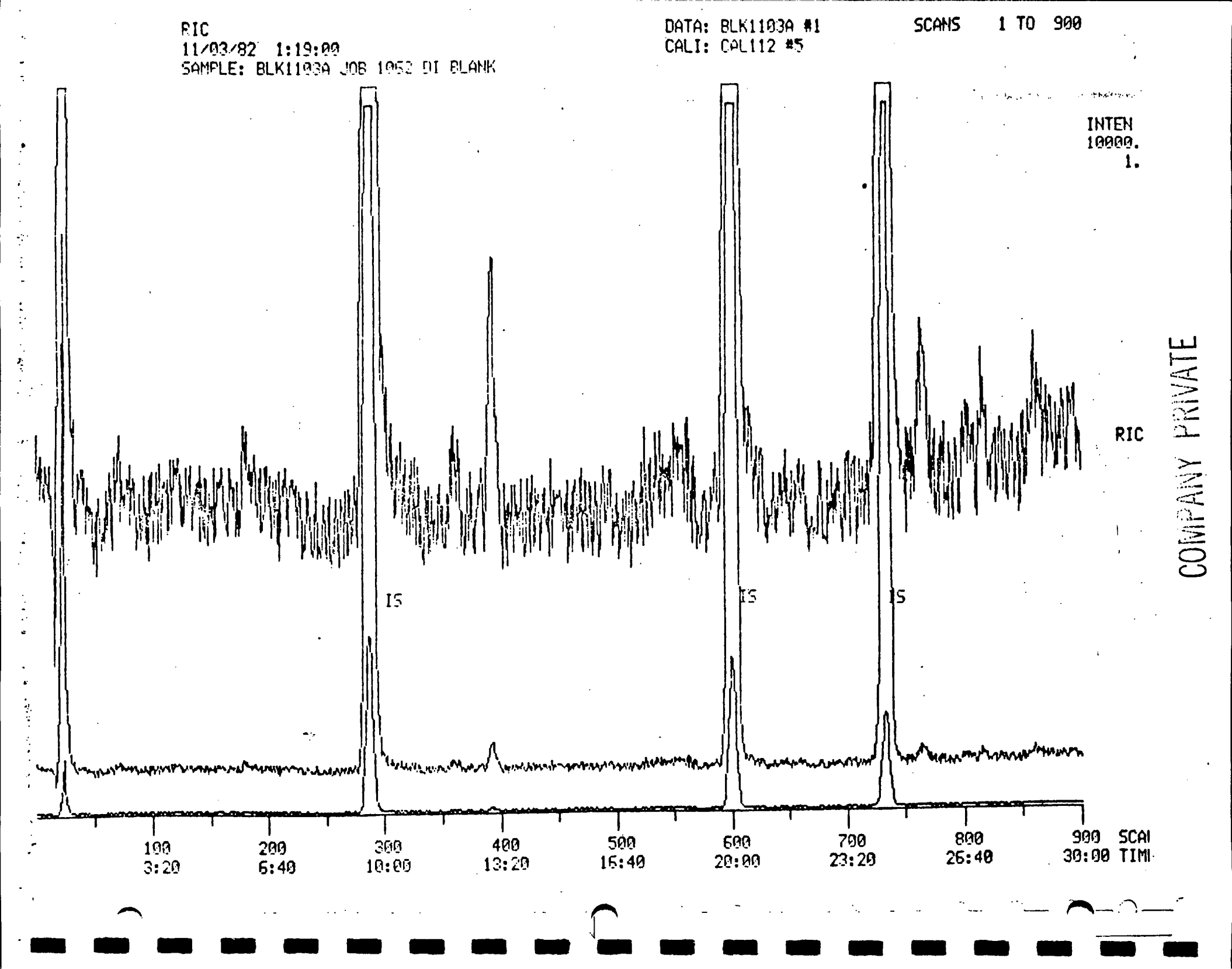
SCAI
TIMI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CALI: CAL112 #5
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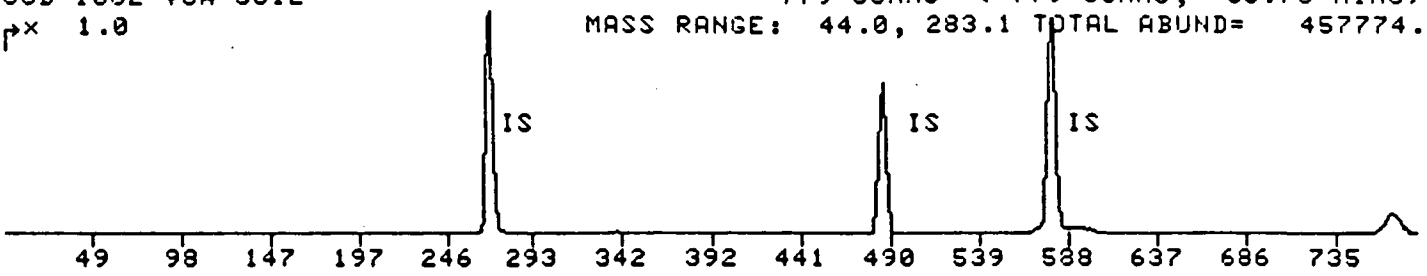
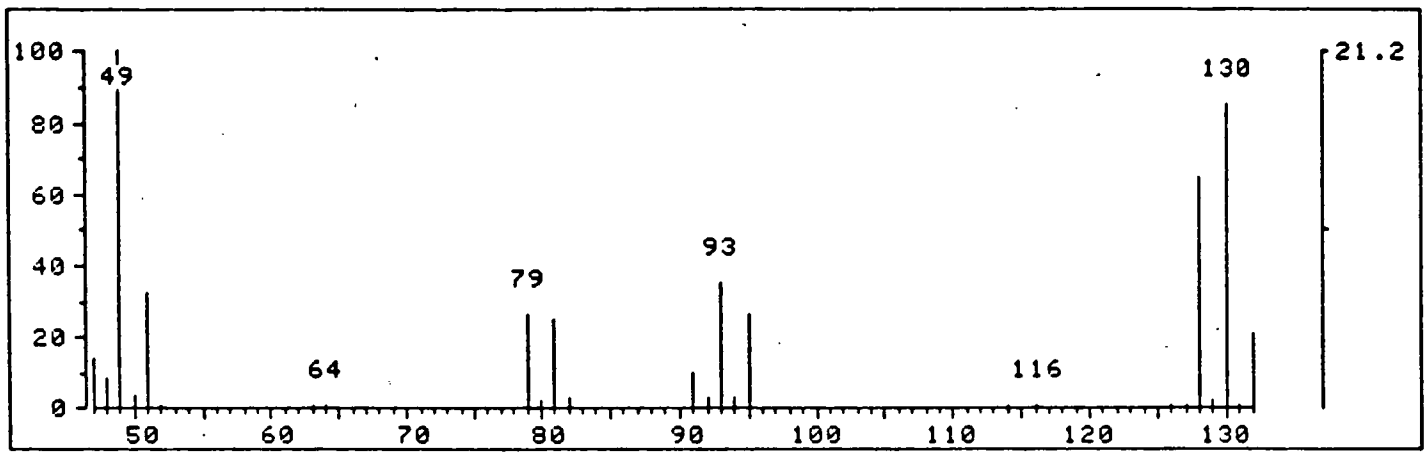
INTEN
10000.
1.
RIC
IS
IS
IS
COMPANY PRIVATE
100
3:20
200
6:40
300
10:00
400
13:20
500
16:40
600
20:00
700
23:20
800
26:40
900 SCAI
30:00 TIMI

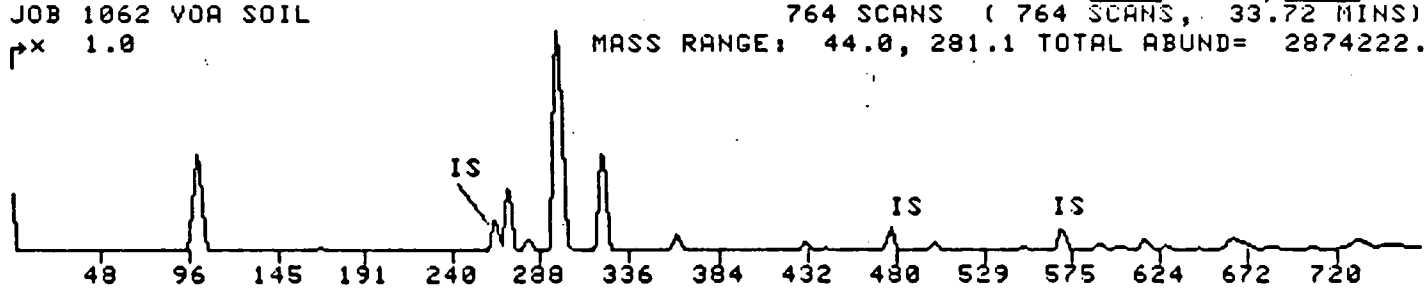
DI BLANK
JOB 1062 VOA SOIL
FRN 21284, CRN 191
779 SCANS (779 SCANS, 33.75 MINS)
×1.0
MASS RANGE: 44.0, 283.1 TOTAL ABUND= 457774.



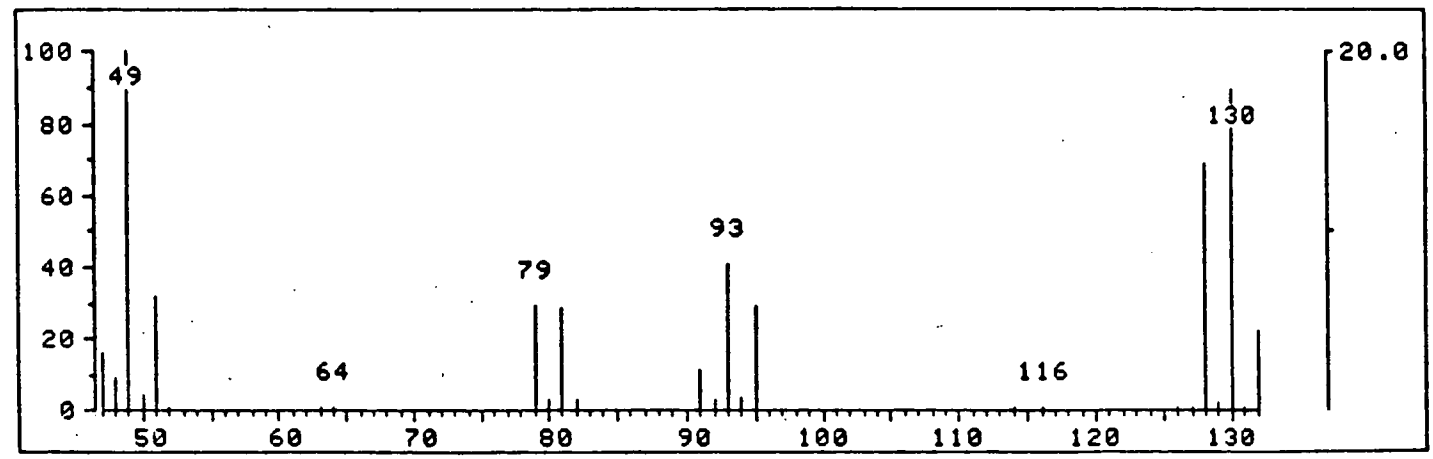
268 RET. TIME: 12.93 TOT ABUND= 29088. BASE PK/ABUND: 49.0/ 6164.



AS 004 (BS)
JOB 1062 VOA SOIL
FRN 21285, CRN 191
764 SCANS (764 SCANS, 33.72 MINS)
×1.0
MASS RANGE: 44.0, 281.1 TOTAL ABUND= 2874222.



262 RET. TIME: 13.02 TOT ABUND= 22797. BASE PK/ABUND: 49.0/ 4552.



FILE No. R3336

PROJECT GEOHYDROLOGIC STUDIES BELL AEROSPACE/TEXTRON SHEET 1 OF 1

LOCATION WHEATFIELD, NEW YORK SITE COLLECTOR G. Kamykowski / R. Lapont

STATION NUMBER	SEQUENCE NUMBER	DATE	TIME	SERIAL NUMBER	STATION LOCATION	SAMPLE TYPE	REMARKS
B-5	001	10/26/82	1410		monitoring well	Ground Water Sample - 2 containers	
B-6	002	10/26/82	1350		monitoring well	Ground Water Sample - 2 containers	
A-W	003	10/26/82	1305		neutralization pond	Water Sample from neutralization pond - 2 containers	
A-S	004	10/26/82	1435		neutralization pond	Bottom Sediment from neutralization pond - 2 containers	
F-B	005	10/26/82			Fld. Blank	Fld. Blank - 1 Container	

TOTAL No. OF CONTAINERS

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
1. Raymond Lapont	10-28-82 16 45		2.		
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
3.			4.		Deborah J. Bowie 10/29/82 1450
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	RECEIVED FOR LAB BY:	DATE/TIME
5.			6.		

RETURN TO:

COMPANY PRIVATE

VOLATILE ORGANIC ANALYSIS (VOA) FOR NEUTRALIZATION POND WATER AND SEDIMENT SAMPLES

Report Prepared For

BELL AEROSPACE/TEXTRON

by

ADVANCED ENVIRONMENTAL SYSTE$MS, INC.

Prepared by:

December 13, 1982

AES - Report YS

Michael J. Carlton

Michael J. Carlton
GC Technician

COMPANY PRIVATE

SCOPE OF WORK

At the request of Mr. John Beresny, Purchasing Department of Bell Aerospace/ Textron, Mead Compuchem has completed the Gas Chromatograph/Mass Spectrometric (GC/MS) Volatile Organic Analsysis for Advanced Environmental Systems (AES) on four (4) water samples and one (1) Neutralization Pond sediment sample. The samples were labeled Field blank, B-5 001, B-6 002, A-W 003, and A-S 004.

SAMPLE COLLECTION AND CHAIN OF CUSTODY

The samples were collected on October 28, 1982 by Goldberg-Zoino personnel and delivered to the AES laboratory. Chain of Custody was transferred to Mrs. Patricia Dzimian, Senior Laboratory Technician. The samples were then packaged and shipped by Purolator Air to Mead Compuchem, who received them on November 2, 1982.

METHODOLOGY

The reference for Volatile Organics (Method 624) was followed in the Federal Register, December 3, 1979, Vol. 44, No. 233.

SUMMARY

The Gas Chromatograph/Mass Spectrometric (GC/MS) analysis which was performed by Mead Compuchem for Priority Pollutant Volatile Organics showed the detection of the compounds listed in Table 1.

SUMMARY (Cont'd.)

Table 1. Priority Pollutant Volatile Organics Analysis
(Expressed as µg/l, or ppb)

Customer Sample Identification	Compound	Concentration
Field Blank	-	-
B-5 001	1,2-Trans-Dichloroethylene	28
	Vinyl Chloride	33
B-6 002	Benzene	21
	Chloroform	820
	1,1-Dichloroethane	130
	1,1-Dichloroethylene	240
	Trans-1,3-Dichloropropene	20
	Ethylbenzene	14
	Methylene Chloride	110,000
	Tetrachloroethylene	13
	Toluene	47
	1,2-Trans-Dichloroethylene	12,000
	1,1,1-Trichloroethane	670
	Trichlorethane	400,000
	Trichlorofluoromethane	20,000
	Vinyl Chloride	570
A-W 003	Methylene Chloride	1,600
A-S 004	Methylene Chloride	1,400
	1,2-Trans-Dichloroethylene	13,000
	1,1,1-Trichlorethane	690
	Trichloroethylene	6,300
	Vinyl Chloride	2,700

EXHIBIT I. LABORATORY CHRONICLE

BELL AEROSPACE/TEXTRON IDENTIFICATION: Field Blank
SAMPLE IDENTIFIER: YS-AO
COMPUCHEM SAMPLE NUMBER: 22181

	Date
Received/Refrigerated	11/02/82
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	11/22/82
2. Base/Neutrals	Not Requested
3. Acids	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Cyanides	Not Requested
2. Phenols	Not Requested
3. Metals	Not Requested

EXHIBIT II - COMPOUND LIST

BELL AEROSPACE/TEXTRON IDENTIFICATION: Field Blank
SAMPLE IDENTIFIER: YS-AO
COMPUCHEM SAMPLE NUMBER: 22181

	VOLATILE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)	SCAN NUMBER
1V.	ACROLEIN	BDL	100	
2V.	ACRYLONITRILE	BDL	100	
3V.	BENZENE	BDL	10	
4V.	BIS (CHLOROMETHYL) ETHER	BDL	10	
5V.	BROMOFORM	BDL	10	
6V.	CARBON TETRACHLORIDE	BDL	10	
7V.	CHLOROBENZENE	BDL	10	
8V.	CHLORODIBROMOMETHANE	BDL	10	
9V.	CHLOROETHANE	BDL	10	
10V.	2-CHLOROETHYLVINYL ETHER	BDL	10	
11V.	CHLOROFORM	BDL	10	
12V.	DICHLOROBROMOMETHANE	BDL	10	
13V.	DICHLORODIFLUOROMETHANE	BDL	10	
14V.	1,1-DICHLOROETHANE	BDL	10	
15V.	1,2-DICHLOROETHANE	BDL	10	
16V.	1,1-DICHLOROETHYLENE	BDL	10	
17V.	1,2-DICHLOROPROPANE	BDL	10	
18V.	CIS-1,3-DICHLOROPROPENE	BDL	10	
19V.	TRANS-1,3-DICHLOROPROPENE	BDL	10	
20V.	ETHYLBENZENE	BDL	10	
21V.	BROMOMETHANE	BDL	10	
22V.	CHLOROMETHANE	BDL	10	
23V.	METHYLENE CHLORIDE	BDL	10	
24V.	1,1,2,2-TETRACHLOROETHANE	BDL	10	
25V.	TETRACHLOROETHYLENE	BDL	10	
26V.	TOLUENE	BDL	10	
27V.	1,2-TRANS-DICHLOROETHYLENE	BDL	10	
28V.	1,1,1-TRICHLOROETHANE	BDL	10	
29V.	1,1,2-TRICHLOROETHANE	BDL	10	
30V	TRICHLOROETHYLENE	BDL	10	
31V.	TRICHLOROFLUOROMETHANE	BDL	10	
32V.	VINYL CHLORIDE	BDL	10	

BDL=BELOW DETECTION LIMIT

EXHIBIT I. LABORATORY CHRONICLE

BELL AEROSPACE/TEXTRON IDENTIFICATION: B5-001
SAMPLE IDENTIFIER: YS-A1
COMPUCHEM SAMPLE NUMBER: 22182

	Date
Received/Refrigerated	11/02/82
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	11/22/82
2. Base/Neutrals	Not Requested
3. Acids	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Cyanides	Not Requested
2. Phenols	Not Requested
3. Metals	Not Requested

EXHIBIT II - COMPOUND LIST

BELL AEROSPACE/TEXTRON IDENTICATION: B5-001

SAMPLE IDENTIFIER: YS-A1
COMPUCHEM SAMPLE NUMBER: 22182

	VOLATILE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)	SCAN NUMBER
1V.	ACROLEIN	BDL	100	
2V.	ACRYLONITRILE	BDL	100	
3V.	BENZENE	BDL	10	
4V.	BIS (CHLOROMETHYL) ETHER	BDL	10	
5V.	BROMOFORM	BDL	10	
6V.	CARBON TETRACHLORIDE	BDL	10	
7V.	CHLOROBENZENE	BDL	10	
8V.	CHLORODIBROMOMETHANE	BDL	10	
9V.	CHLOROETHANE	BDL	10	
10V.	2-CHLOROETHYLVINYL ETHER	BDL	10	
11V.	CHLOROFORM	BDL	10	
12V.	DICHLOROBROMOMETHANE	BDL	10	
13V.	DICHLORODIFLUOROMETHANE	BDL	10	
14V.	1,1-DICHLOROETHANE	BDL	10	
15V.	1,2-DICHLOROETHANE	BDL	10	
16V.	1,1-DICHLOROETHYLENE	BDL	10	
17V.	1,2-DICHLOROPROPANE	BDL	10	
18V.	CIS-1,3-DICHLOROPROPENE	BDL	10	
19V.	TRANS-1,3-DICHLOROPROPENE	BDL	10	
20V.	ETHYLBENZENE	BDL	10	
21V.	BROMOMETHANE	BDL	10	
22V.	CHLOROMETHANE	BDL	10	
23V.	METHYLENE CHLORIDE	BDL	10	
24V.	1,1,2,2-TETRACHLOROETHANE	BDL	10	
25V.	TETRACHLOROETHYLENE	BDL	10	
26V.	TOLUENE	BDL	10	
27V.	1,2-TRANS-DICHLOROETHYLENE	28	10	334
28V.	1,1,1-TRICHLOROETHANE	BDL	10	
29V.	1,1,2-TRICHLOROETHANE	BDL	10	
30V	TRICHLOROETHYLENE	BDL	10	
31V.	TRICHLOROFLUOROMETHANE	BDL	10	
32V.	VINYL CHLORIDE	33	10	111

BDL=BELOW DETECTION LIMIT

EXHIBIT I. LABORATORY CHRONICLE

BELL AEROSPACE/TEXTRON IDENTIFICATION: B6-002
SAMPLE IDENTIFIER: YS-A2
COMPUCHEM SAMPLE NUMBER: 22183

	Date
Received/Refrigerated	11/02/82
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	11/22/82 - 11/24/82*
2. Base/Neutrals	Not Requested
3. Acids	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Cyanides	Not Requested
2. Phenols	Not Requested
3. Metals	Not Requested

*Dates represent initial analysis and analysis of a dilution

EXHIBIT II - COMPOUND LIST

BELL AEROSPACE/TEXTRON IDENTIFICATION: B6-002
SAMPLE IDENTIFIER: YS-A2
COMPUCHEM SAMPLE NUMBER: 22183

	VOLATILE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)	SCAN NUMBER
1V.	ACROLEIN	BDL	100	
2V.	ACRYLONITRILE	BDL	100	
3V.	BENZENE	21	10	509
4V.	BIS (CHLOROMETHYL) ETHER	BDL	10	
5V.	BROMOFORM.	BDL	10	
6V.	CARBON TETRACHLORIDE	BDL	10	
7V.	CHLOROBENZENE	BDL	10	
8V.	CHLORODIBROMOMETHANE	BDL	10	
9V.	CHLOROETHANE	BDL	10	
10V.	2-CHLOROETHYLVINYL ETHER	BDL	10	
11V.	CHLOROFORM	820(1)	10	350
12V.	DICHLOROBROMOMETHANE	BDL	10	
13V.	DICHLORODIFLUOROMETHANE	BDL	10	
14V.	1,1-DICHLOROETHANE	130	10	315
15V.	1,2-DICHLOROETHANE	BDL	10	
16V.	1,1-DICHLOROETHYLENE	240	10	276
17V.	1,2-DICHLOROPROPANE	BDL	10.	
18V.	CIS-1,3-DICHLOROPROPENE	BDL	10	
19V.	TRANS-1,3-DICHLOROPROPENE	20	10	476
20V.	ETHYLBENZENE	14	10	804
21V.	BROMOMETHANE	BDL	10	
22V.	CHLOROMETHANE	BDL	10	
23V.	METHYLENE CHLORIDE	110000(2)	10	205
24V.	1,1,2,2-TETRACHLOROETHANE	BDL	10	
25V.	TETRACHLOROETHYLENE	13	10	661
26V.	TOLUENE	47	10	697
27V.	1,2-TRANS-DICHLOROETHYLENE	12000(2)	10	338
28V.	1,1,1-TRICHLOROETHANE	670	10	410
29V.	1,1,2-TRICHLOROETHANE	BDL	10	
30V	TRICHLOROETHYLENE	400000(2)	10	507
31V.	TRICHLOROFLUOROMETHANE	20000(2)	10	262
32V.	VINYL CHLORIDE	570	10	108

BDL=BELOW DETECTION LIMIT

(1)Quantitated from secondary ion
(2)Concentration determined using 1000:1 dilution.

EXHIBIT I. LABORATORY CHRONICLE

BELL AEROSPACE/TEXTRON IDENTICATION: AW-003
SAMPLE IDENTIFIER: YS-A3
COMPUCHEM SAMPLE NUMBER: 22184

	Date
Received/Refrigerated	11/02/82
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	11/24/82
2. Base/Neutrals	Not Requested
3. Acids	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Cyanides	Not Requested
2. Phenols	Not Requested
3. Metals	Not Requested

EXHIBIT II - COMPOUND LIST

BELL AEROSAPCE/TEXTRON IDENTIFICATION: AW-003
SAMPLE IDENTIFIER: YS-A3
COMPUCHEM SAMPLE NUMBER: 22184

	VOLATILE ORGANICS	CONCENTRATION (UG/L)	DETECTION* LIMIT (UG/L)	SCAN NUMBER
1V.	ACROLEIN	BDL	10000	
2V.	ACRYLONITRILE	BDL	10000	
3V.	BENZENE	BDL	1000	
4V.	BIS (CHLOROMETHYL) ETHER	BDL	1000	
5V.	BROMOFORM.	BDL	1000	
6V.	CARBON TETRACHLORIDE	BDL	1000	
7V.	CHLOROBENZENE	BDL	1000	
8V.	CHLORODIBROMOMETHANE	BDL	1000	
9V.	CHLOROETHANE	BDL	1000	
10V.	2-CHLOROETHYLVINYL ETHER	BDL	1000	
11V.	CHLOROFORM	BDL	1000	
12V.	DICHLOROBROMOMETHANE	BDL	1000	
13V.	DICHLORODIFLUOROMETHANE	BDL	1000	
14V.	1,1-DICHLOROETHANE	BDL	1000	
15V.	1,2-DICHLOROETHANE	BDL	1000	
16V.	1,1-DICHLOROETHYLENE	BDL	1000	
17V.	1,2-DICHLOROPROPANE	BDL	1000	
18V.	CIS-1,3-DICHLOROPROPENE	BDL	1000	
19V.	TRANS-1,3-DICHLOROPROPENE	BDL	1000	
20V.	ETHYLBENZENE	BDL	1000	
21V.	BROMOMETHANE	BDL	1000	
22V.	CHLOROMETHANE	BDL	1000	
23V.	METHYLENE CHLORIDE	BDL	1000	
24V.	1,1,2,2-TETRACHLOROETHANE	1600	1000	207
25V.	TETRACHLOROETHYLENE	BDL	1000	
26V.	TOLUENE	BDL	1000	
27V.	1,2-TRANS-DICHLOROETHYLENE	BDL	1000	
28V.	1,1,1-TRICHLOROETHANE	BDL	1000	
29V.	1,1,2-TRICHLOROETHANE	BDL	1000	
30V	TRICHLOROETHYLENE	BDL	1000	
31V.	TRICHLOROFLUOROMETHANE	BDL	1000	
32V.	VINYL CHLORIDE	BDL	1000	

BDL=BELOW DETECTION LIMIT
*Sample analyzed using a 100:1 dilution, thus the higher than normal detection limits.

EXHIBIT I. LABORATORY CHRONICLE

BELL AEROSPACE/TEXTRON IDENTIFICATION: AS-004
SAMPLE IDENTIFIER: YS-A4
COMPUCHEM SAMPLE NUMBER: 22185

	Date
Received/Refrigerated	11/02/82
Organics	
Extracted	Not Required
Analyzed	
1. Volatiles	11/18/82
2. Base/Neutrals	Not Requested
3. Acids	Not Requested
4. Pesticides/PCBS	Not Requested
Inorganics	
1. Cyanides	Not Requested
2. Phenols	Not Requested
3. Metals	Not Requested

EXHIBIT II - COMPOUND LIST

BELL AEROSPACE/TEXTRON IDENTIFICATION: AS-004
SAMPLE IDENTIFIER: YS-A4
COMPUCHEM SAMPLE NUMBER: 22185

	VOLATILE ORGANICS	CONCENTRATION (UG/L)	DETECTION* LIMIT (UG/L)	SCAN NUMBER
1V.	ACROLEIN	BDL	5000	
2V.	ACRYLONITRILE	BDL	5000	
3V.	BENZENE	BDL	500	
4V.	BIS (CHLOROMETHYL) ETHER	BDL	500	
5V.	BROMOFORM	BDL	500	
6V.	CARBON TETRACHLORIDE	BDL	500	
7V.	CHLOROBENZENE	BDL	500	
8V.	CHLORODIBROMOMETHANE	BDL	500	
9V.	CHLOROETHANE	BDL	500	
10V.	2-CHLOROETHYLVINYL ETHER	BDL	500	
11V.	CHLOROFORM	BDL	500	
12V.	DICHLOROBROMOMETHANE	BDL	500	
13V.	DICHLORODIFLUOROMETHANE	BDL	500	
14V.	1,1-DICHLOROETHANE	BDL	500	
15V.	1,2-DICHLOROETHANE	BDL	500	
16V.	1,1-DICHLOROETHYLENE	BDL	500	
17V.	1,2-DICHLOROPROPANE	BDL	500	
18V.	CIS-1,3-DICHLOROPROPENE	BDL	500	
19V.	TRANS-1,3-DICHLOROPROPENE	BDL	500	
20V.	ETHYLBENZENE	BDL	500	
21V.	BROMOMETHANE	BDL	500	
22V.	CHLOROMETHANE	BDL	500	
23V.	METHYLENE CHLORIDE	BDL	500	
24V.	1,1,2,2-TETRACHLOROETHANE	1400	500	201
25V.	TETRACHLOROETHYLENE	BDL	500	
26V.	TOLUENE	BDL	500	
27V.	1,2-TRANS-DICHLOROETHYLENE	BDL	500	
28V.	1,1,1-TRICHLOROETHANE	13000	500	333
29V.	1,1,2-TRICHLOROETHANE	690	500	409
30V	TRICHLOROETHYLENE	BDL	500	
31V.	TRICHLOROFLUOROMETHANE	6300	500	497
32V.	VINYL CHLORIDE	BDL	500	
		2700	500	109

BDL=BELOW DETECTION LIMIT
*Sample analyzed using a 50:1 dilution, thus the higher than normal detection limits.

NOTE: Although classified by client as a soil, the sample was fluid enough to treat as a liquid sample.

FILE No. R3336

PROJECT Geohydrologic Studies Bell Aerospace/Textron SHEET 1 OF 1

LOCATION Wheatfield, New York Site COLLECTOR G. Rampff / R. Laport

STATION NUMBER	SEQUENCE NUMBER	DATE	TIME	SERIAL NUMBER	STATION LOCATION	SAMPLE TYPE REMARKS
B-5	001	10/28/82	1410		monitoring well	Ground Water Sample - 2 containers
B-6	002	10/28/82	1350		monitoring well	Ground Water Sample - 2 containers
A-W	003	10/28/82	1305		neutralization pond	Water Sample from Neutralization Pond - 2 containers
A-S	004	10/28/82	1435		neutralization pond	Bottom Sediment from Neutraliz. Pond - 2 containers
FB	005	10/28/82			Fld. Blank	Fld. Blank - 1 container
						TOTAL No. OF CONTAINERS

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
1. Raymond Lapott	10-28-82/1530		2.		

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
3.			4.		

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	RECEIVED FOR LAB BY:	DATE/TIME
5.			6.	Al Zayszfel	10/28/82 15:30

RETURN TO:

Pond Liquid

SAMPLE HISTORY

CUSTOMER Bell Aerospace ADDRESS Niagara Falls Blvd + Walmore Rd

SAMPLE POINT Neutralization Pond ID# _____ LOCATION Pond + sediment Bed TYPE Liquid

TIME _____

ORDER CODE _____ DATE COLLECTED 10/28/82 10/27/82 BY Gold Burg Zoino Personnel

AES SAMPLE # _____ PRESERVATIVE None

* CUSTOMER SAMPLE # _____ TYPE CONTAINER Glass VOLUME Fed Reg

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custo
	* Raymond Lapoot	Albert C Zapfel	1536	10/28/82	analysis

AES PRESERVATION: Type _____ By _____ Date _____

STORAGE TEMPERATURE _____ SAMPLE EXPIRATION DATE _____

EXTRACTION DATE _____ EXTRACT EXPIRATION DATE _____

DUE DATE _____ ANALYSIS COMPLETED (Date) _____ By _____

REPORT WRITTEN (Date) _____ BY _____ MAILED (Date) _____

PARAMETERS _____

COMMENTS/FOOTNOTES _____

SAMPLE MOVED TO INACTIVE STORAGE BY _____ DATE _____

APPROVAL FOR DISCARD BY _____ DATE _____

DISCARDED BY _____ DATE _____

COMPANY PRIVATE

SOIL

SAMPLE HISTORY

CUSTOMER Bell Aerospace ADDRESS Niagara Falls Bulvd + Walmore

SAMPLE POINT Neutralization Pond ID# _____ LOCATION Sediment Bed TYPE Soil Sediment RD

TIME _____

ORDER CODE _____ DATE COLLECTED 10/28/82 10/27/82 BY Goldberg Zoino personnel

AES SAMPLE # _____ PRESERVATIVE None

* CUSTOMER SAMPLE # _____ TYPE CONTAINER Glass VOLUME Fed Reg

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custo
	* Raymond Lapoint	Albert Zapfel	1530	10/28/82	analysis

AES PRESERVATION: Type _____ By _____ Date _____

STORAGE TEMPERATURE _____ SAMPLE EXPIRATION DATE _____

EXTRACTION DATE _____ EXTRACT EXPIRATION DATE _____

DUE DATE _____ ANALYSIS COMPLETED (Date) _____ By _____

REPORT WRITTEN (Date) _____ BY _____ MAILED (Date) _____

PARAMETERS _____

COMMENTS/FOOTNOTES _____

SAMPLE MOVED TO INACTIVE STORAGE BY _____ DATE _____

APPROVAL FOR DISCARD BY _____ DATE _____

DISCARDED BY _____ DATE _____

COMPANY PRIVATE

COMPANY PRIVATE

FILE No. R3336

PROJECT Geohydrologic Studies Bell Aerospace/Textron SHEET 1 OF 1

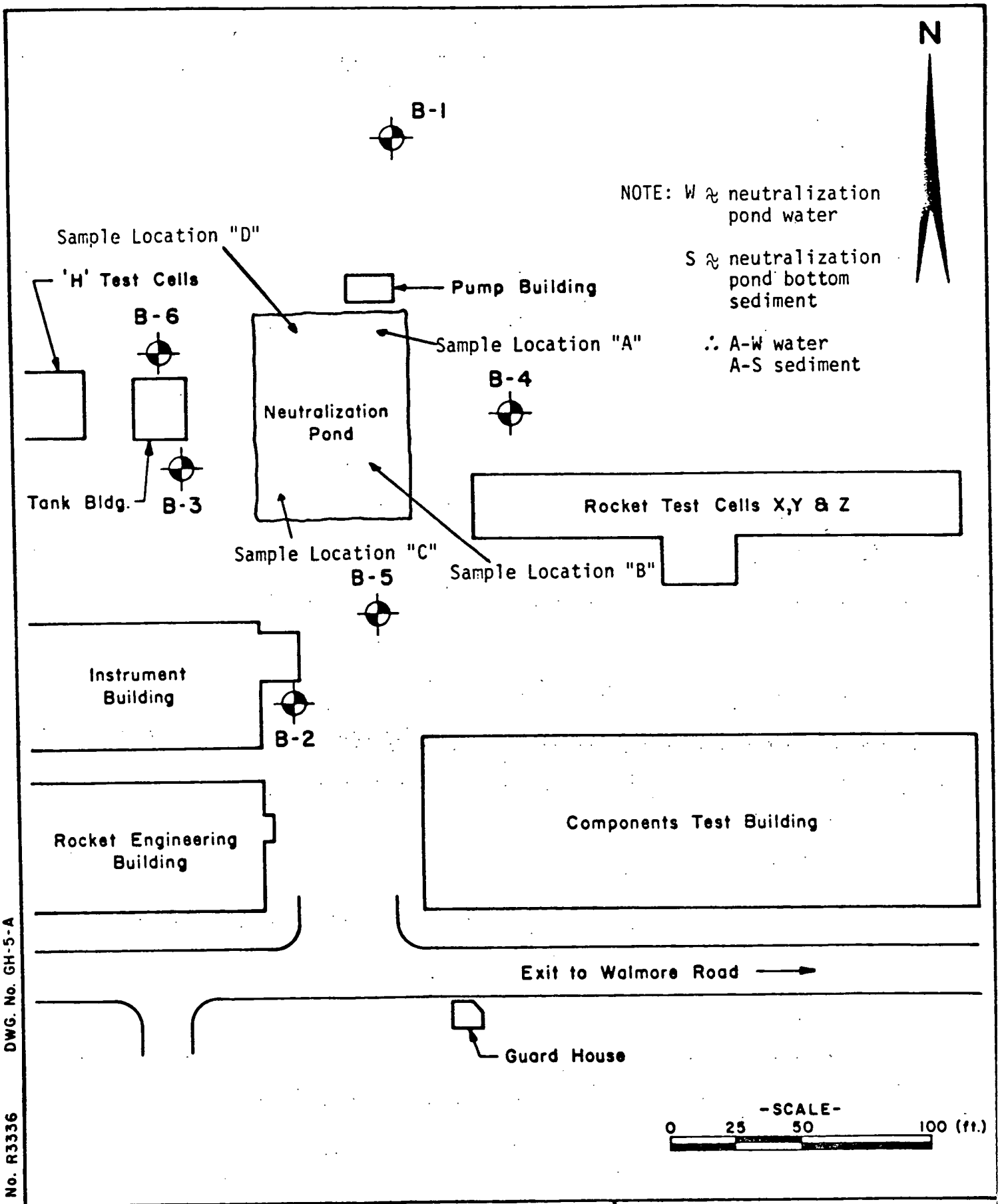
LOCATION Wheatfield, New York Site COLLECTOR B. Kampff / R. Laport

STATION NUMBER	SEQUENCE NUMBER	DATE	TIME	SERIAL NUMBER	STATION LOCATION	SAMPLE TYPE REMARKS
B-5	001	10/26/82	1410		monitoring well	Ground Water Sample - 2 Containers
B-6	002	10/26/82	1350		monitoring well	Ground Water Sample - 2 Containers
A-W	003	10/26/82	1305		neutralization pond	Water Sample from Neutralization Pond - 2 Containers
A-S	004	10/26/82	1435		neutralization pond	Bottom Sediment from Neutralization Pond - 2 Containers
						TOTAL No. OF CONTAINERS

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
1. Raymond Laport	10-28-82/1458	Earl C. Kraus	2.		
3.			4.		

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	RECEIVED FOR LAB BY:	DATE/TIME
5.			6.		

RETURN TO:



FILE No. R3336 DWG. No. GH-5-A

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GEOHYDROLOGIC STUDIES
BELL AEROSPACE TEXTRON
WHEATFIELD, NEW YORK

FIELD SCREENING LOCATIONS

DEC. 1982

SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON GEOHYDROLOGIC STUDIES

LOCATION WHEATFIELD, NEW YORK

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
B-1	9/14/82	11:30	21.5	8.85	980	S- .4 PPT Reddish-Brown tubrbid water
	9/23/82	12:00	15.0	8.55	830	S≈0.4 PPT Orange turbid water

GZA

Sheet ___ of ___

SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON GEOHYDROLGIC STUDIES

LOCATION WHEATFIELD, NEW YORK

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
B-3	9/14/82	12:10	21.5	7.40	1500	S- 0.9 PPT Reddish-brown turbid water
	9/23/82	11:20	16	7.15	1370	S=1.0 PPT Orange turbid water

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Sheet ____ of ____

SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON GEOHYDROLOGIC STUDIES

LOCATION WHEATFIELD, NEW YORK

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
						S-1.1 PPT
B-4	9/14/82	11:10	23	7.75	2190	Oil or grease noted on surface of water; slightly red turbid water
	9/23/82	10:51	15	7.35	1750	S≈1.1 Bailed 14 times
	9/23/82	13:30	15	7.45	1610	S≈1.1 Bailed 7 more times; grease (oil) present; bubbles appear when poured vigorously.

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Sheet ____ of ____

SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON GEOHYDROLOGIC STUDIES

LOCATION WHEATFIELD, NEW YORK

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
B-5	9/14/82	11:55	22	7.30	1300	S-0.6 PPT Gravish-black turbid water; H_2S odor
	9/23/82	13:00	16	6.85	1400	S≈0.9 PPT Gravish-Black turbid water, H_2S odor
	10/28/82	14:16	17	7.95	1300	S≈0.9 PPT GC/MS sample AES & RECRA

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Sheet ___ of ___

SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON GEOHYDROLOGIC STUDIES

LOCATION WHEATFIELD, NEW YORK

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
B-6	9/14/82	12:35	20.5	7.60	2710	S-1.8 PPT Reddish-brown turbid water
	9/23/82	11:40	15.0	7.40	2310	Grease (oil)present; orange in color
	10/28/82	13:35	15.5	7.80	2000	S≈1.2 PPT

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SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON: Geohydrologic Studies

LOCATION Wheatfield, NY

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
A	8/11/82	10:45	24	7.80	310	checked pH with their permanent recorder 7.80
	8/12/82	15:20	21.5	8.05	305	Bell pH = 7.60
	9/14/82	12:45	24	8.00	320	Bell pH = 7.80 water sample for Bosto
	9/23/82	12:15	17	8.15	282	
	10/28/82	13:10	14	7.30	270	Salinity 0.0 Gc/ms sample AES & RECRA

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Sheet ____ of ____

SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON: Geohydrologic Studies

LOCATION Wheatfield, NY

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
B	8/11/82	11:00	22	7.85	300	
	8/12/82	15:25	22	8.00	300	
	9/14/82	12:40	24.5	7.95	320	Water sample for ARO & Boston
	9/23/82	12:20	17	8.15	283	

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Sheet ____ of ____

SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON: Geohydrologic Studies

LOCATION Wheatfield, NY

DATE _____ FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
C	8/11/82	11:10	22	7.85	260	
	8/12/82	15:30	21.5	7.80	300	
	9/01/82	15:00	24	7.40	320	Collected sludge samples for Boston Collected water samples for ARO & Bos
	9/14/82	12:50	24.5	8.05	315	Water sample for Boston
	9/23/82	12:25	17	8.15	282	

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SUMMARY OF FIELD WATER QUALITY TESTS

PROJECT BELL AEROSPACE/TEXTRON GEOHYDROLOGIC STUDIES

LOCATION WHEATFIELD, NEW YORK

PERMANENT RECORDING pH STATION IN PUMP HOUSE

FILE No. R3336

SAMPLE LOCATION	DATE	TIME	TEMP. (°C)	pH	CONDUCT. (μ MHOS)	REMARKS
	8/11/82	10:50	-	7.80		
	8/12/82	15:27	-	7.60		
	9/1/82	14:30	-	7.20		
	9/14/82	10:00	-	7.80		
	9/23/82	10:53	-	8:05		
	9/23/82	13:15	-	8:00		
	10/28/82	12:35	-	8.40		
	11/15/82					
	12/1/82	14:25	-	7.40		

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Sheet ___ of ___

BELL AEROSPACE TEXTRON
POST OFFICE BOX ONE
BUFFALO, N.Y. 14240

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