

LI50-C962778-00-B

**R.V. FITZSIMMONS & ASSOCIATES**

1860 ARTHUR DRIVE  
WEST CHICAGO, ILLINOIS 60185

PHONE: (708) 231-0680  
FAX: (708) 231-0811

TO: Larry Jones

FROM: Tim Lambert

NUMBER OF PAGES IN THIS FAX (INCLUDING COVER): 10

DATE: 10/2/96

TIME: \_\_\_\_\_

NOTES: \_\_\_\_\_  
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1860 Arthur Drive  
 West Chicago, IL 60185  
 Tel: (630) 231-0680  
 Fax: (630) 231-0811

ANALYSIS REPORT FOR:

CBI SERVICES INC.  
 PO Box 160  
 Richland, WA 99352  
  
 Attn: Steve Peters

PURCHASE ORDER NO. [REDACTED]

DATE 10 / 2 / 96

**REPORT OF MATERIALS ANALYSIS:** Analysis of three liquid samples for nonvolatile residue content. Analysis of nonvolatile portion of "Mirachem from Scrubber" for comparison to the residues.

Samples: Mirachem from Scrubber, B-002 Sample Before Wash, B-002 After Wash off Drain & B-002 After Wash on Drain.

**METHODS:** 200 ml of each sample were evaporated in an oven at 95C. The nonvolatile residues left after drying were analyzed by FTIR spectral analysis on a KBr window for identification and comparison.  
 Copies of all FTIR spectra are enclosed.

**RESULTS:** Mirachem from Scrubber

The nonvolatiles from this solution appear to be a mixture of a non-ionic surfactant and a soap (salt of a fatty acid) and are similar to the Mirachem 500 previously analyzed.

B-002 Sample Before Wash

This sample contains 4 ppm nonvolatile residue and appears to be an ester oil.

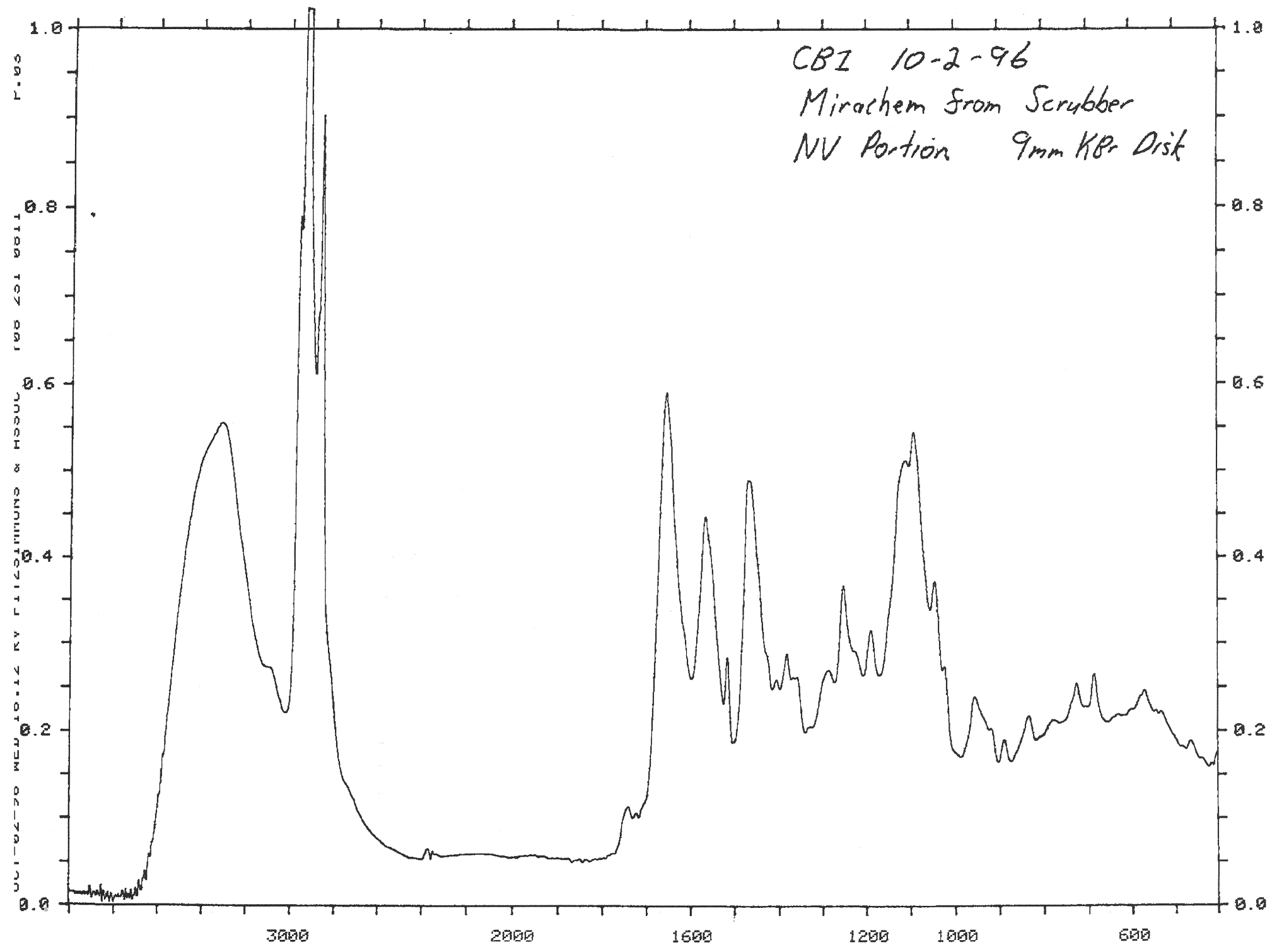
B-002 After Wash off Drain

This sample contains 1 ppm nonvolatile residue which resembles a non-ionic surfactant.

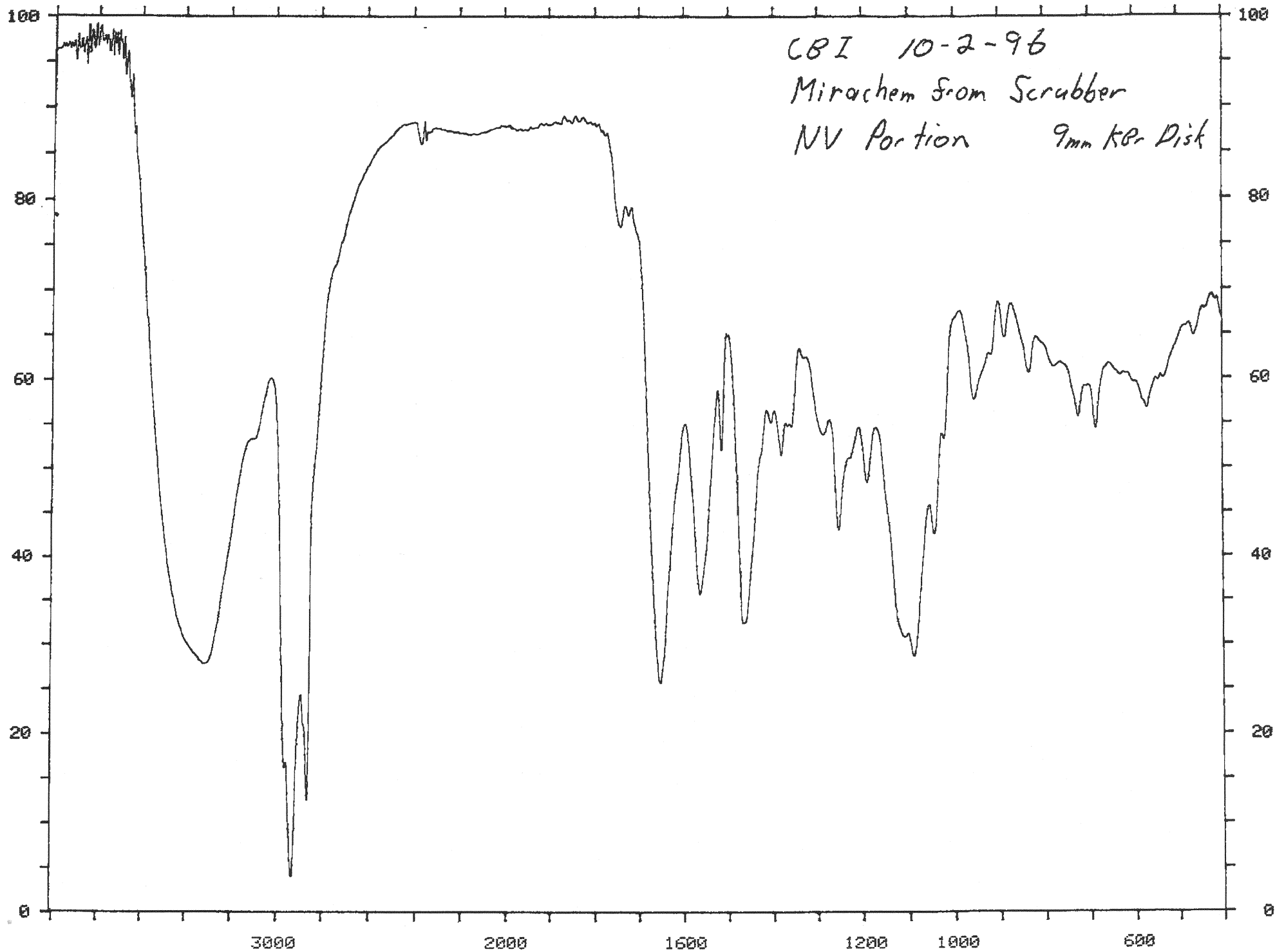
B-002 After Wash on Drain

This sample contains 2.5 ppm nonvolatile residue which resembles a non-ionic surfactant.

CBI 10-2-96  
Mirachem from Scrubber  
NV Portion 9mm KBr Disk



001-02-70 MED 10-12 KV F11231MMND & H330UL 100 251 0811 P.04

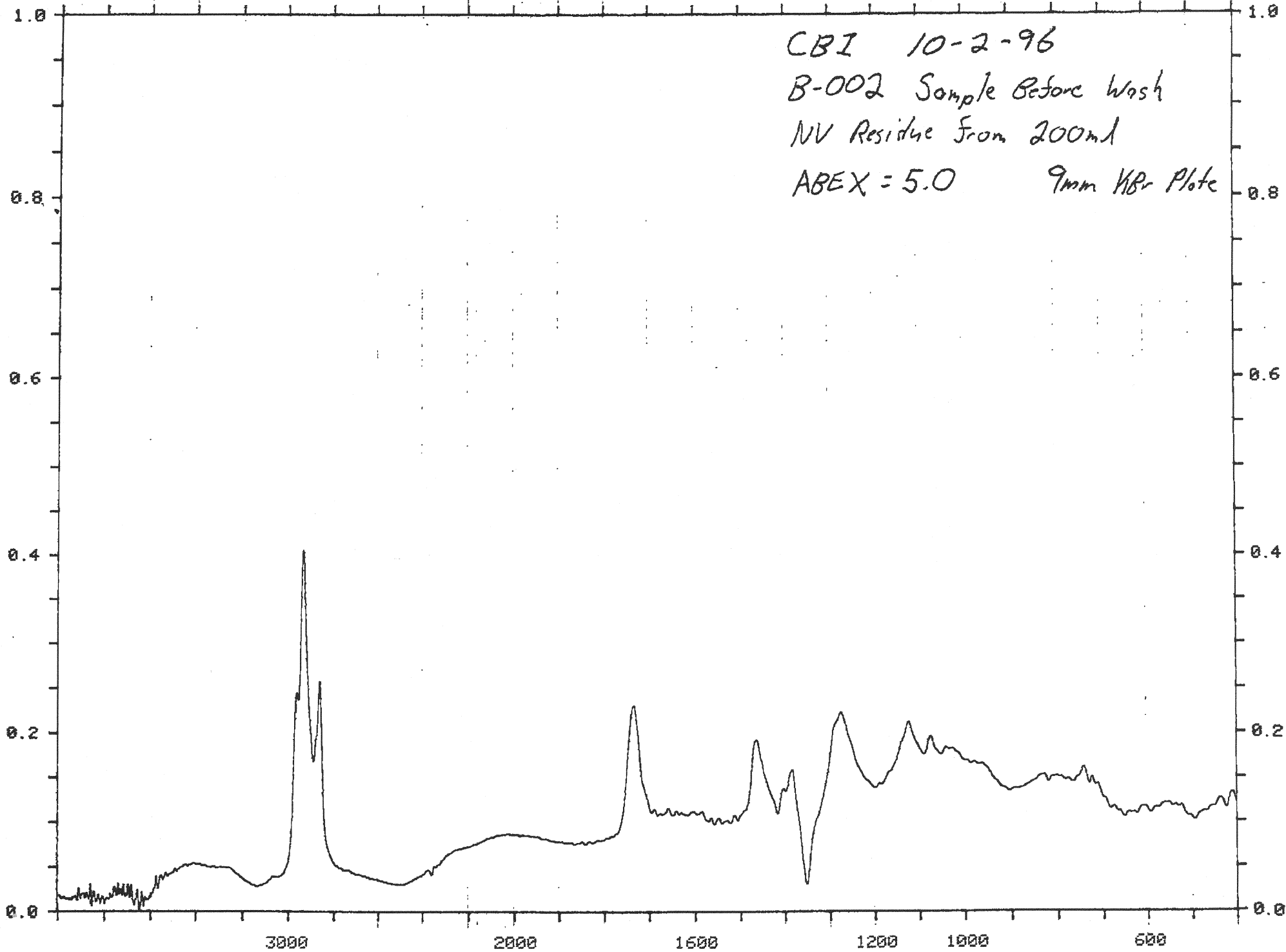


CBI 10-2-96

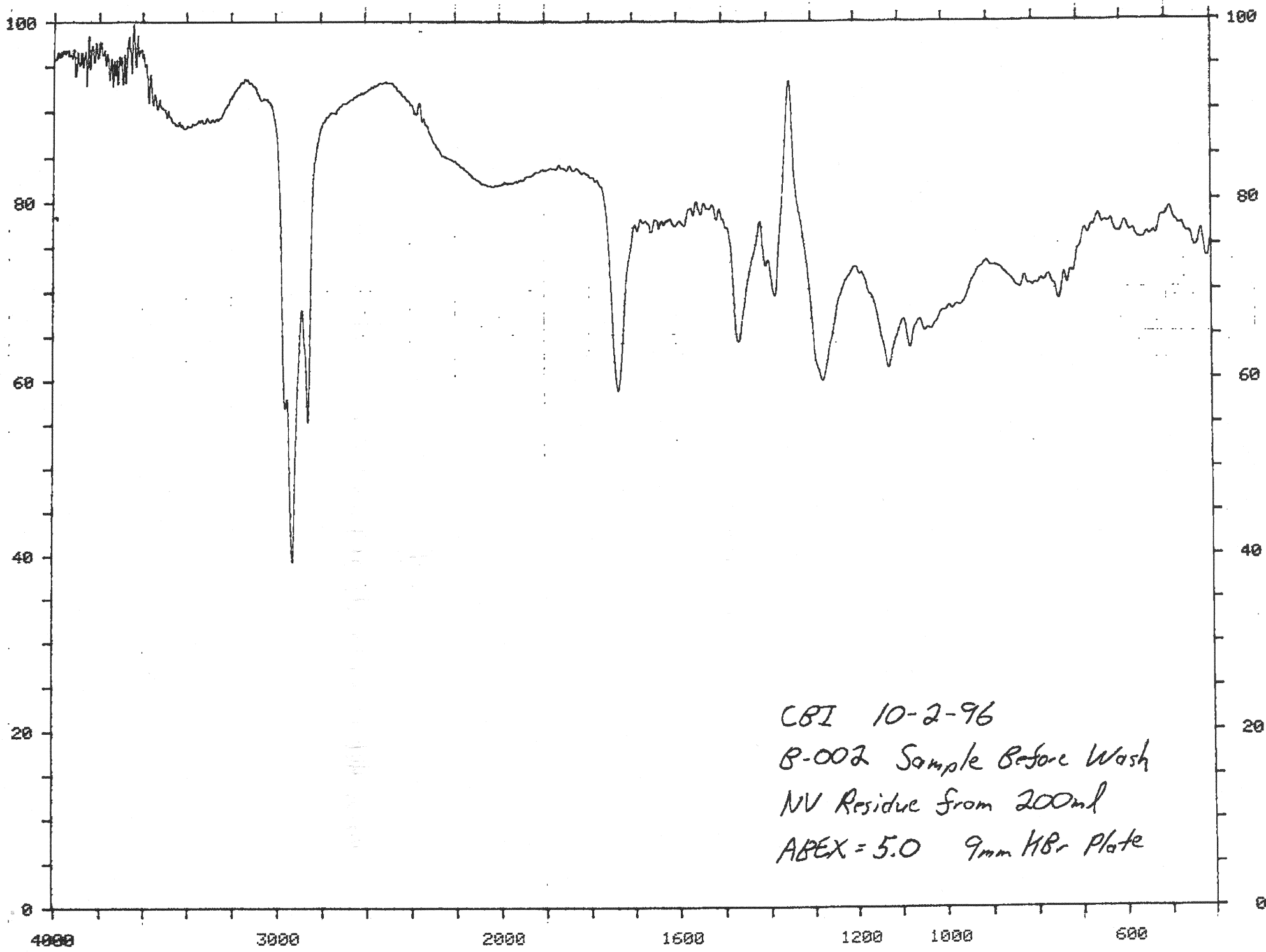
B-002 Sample Before Wash

NV Residue From 200ml

ABEX = 5.0 9mm KBr Plate



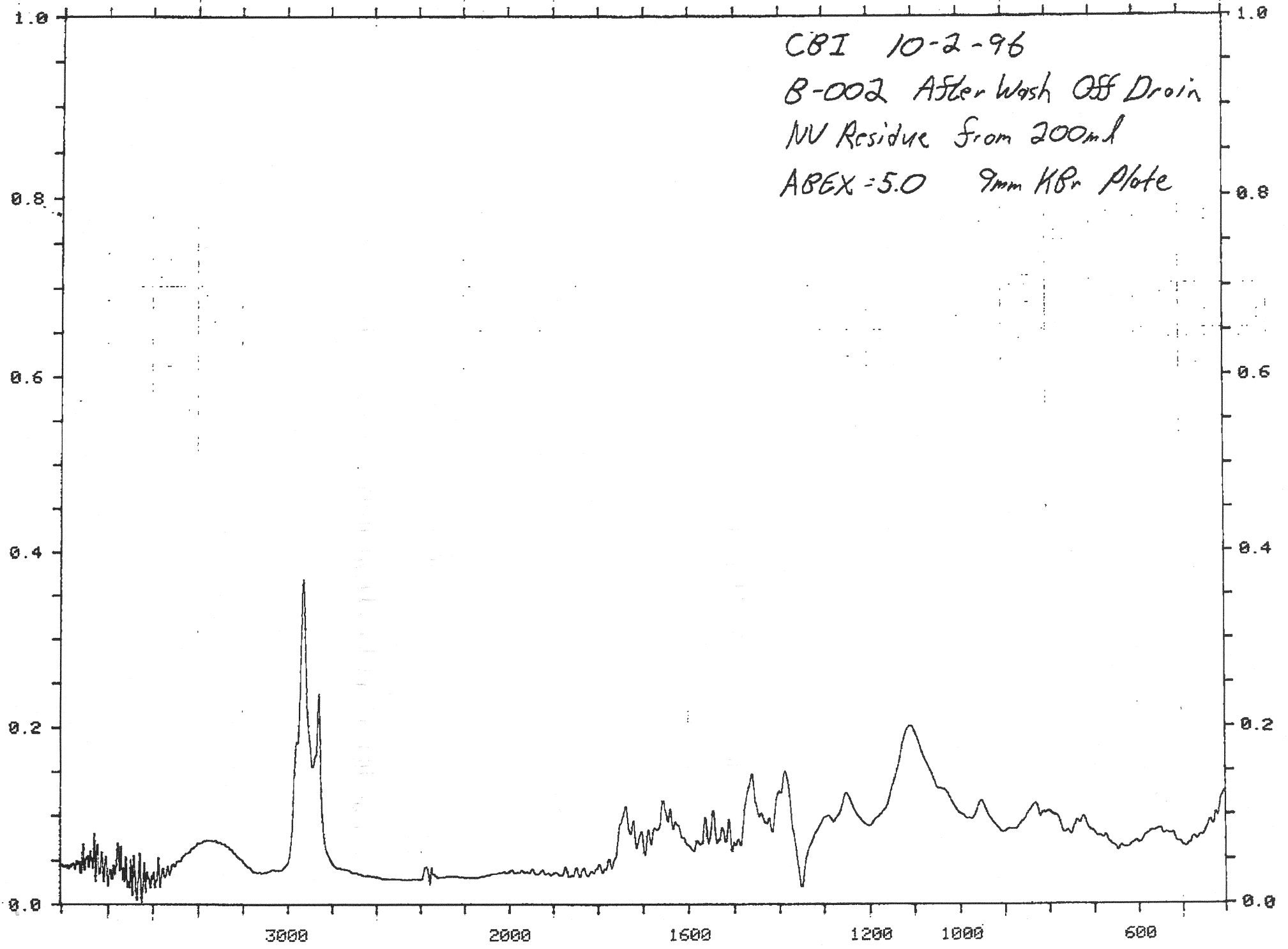
ULI-02-76 MED 10:10 KY P11231MMUNDS & ASSOC FOR 251 MB11 P.06



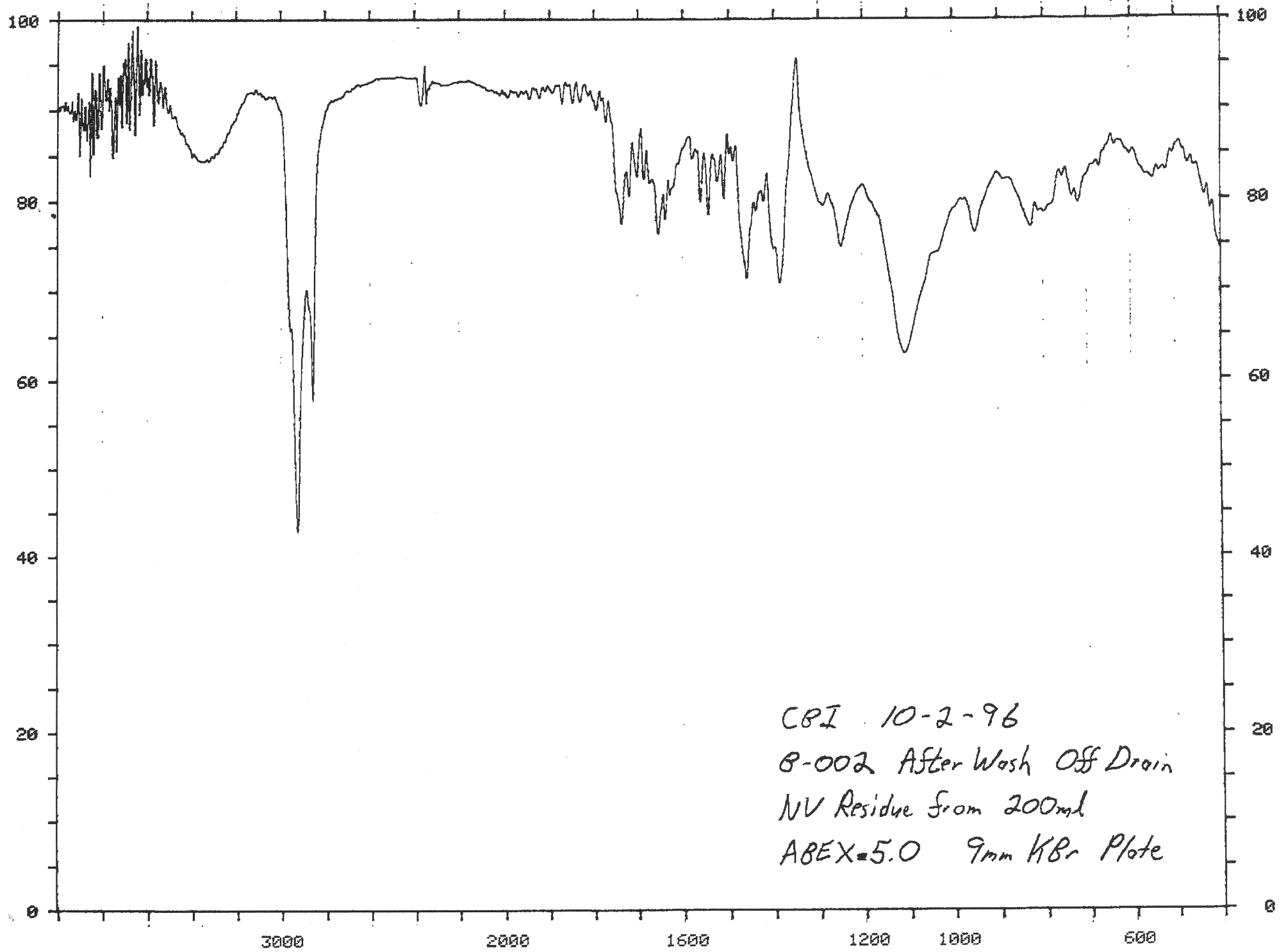
CBI 10-2-96  
B-002 Sample Before Wash  
NV Residue from 200ml  
ABEX = 5.0 9mm KBr Plate

UCI-02-96 MED 10:14 KV FILIZSIMMUND & ASSUL (08 251 0811 P.07

CBI 10-2-96  
B-002 After Wash Off Drain  
NV Residue From 200ml  
ABEX-5.0 9mm KBr Plate



001-004-70 MED 10:14 KY F11231MMND & H333UL 100 201 0811 P.08



CBI 10-2-96  
B-002 After Wash Off Drain  
NV Residue from 200ml  
ABEX=5.0 9mm KBr Plate

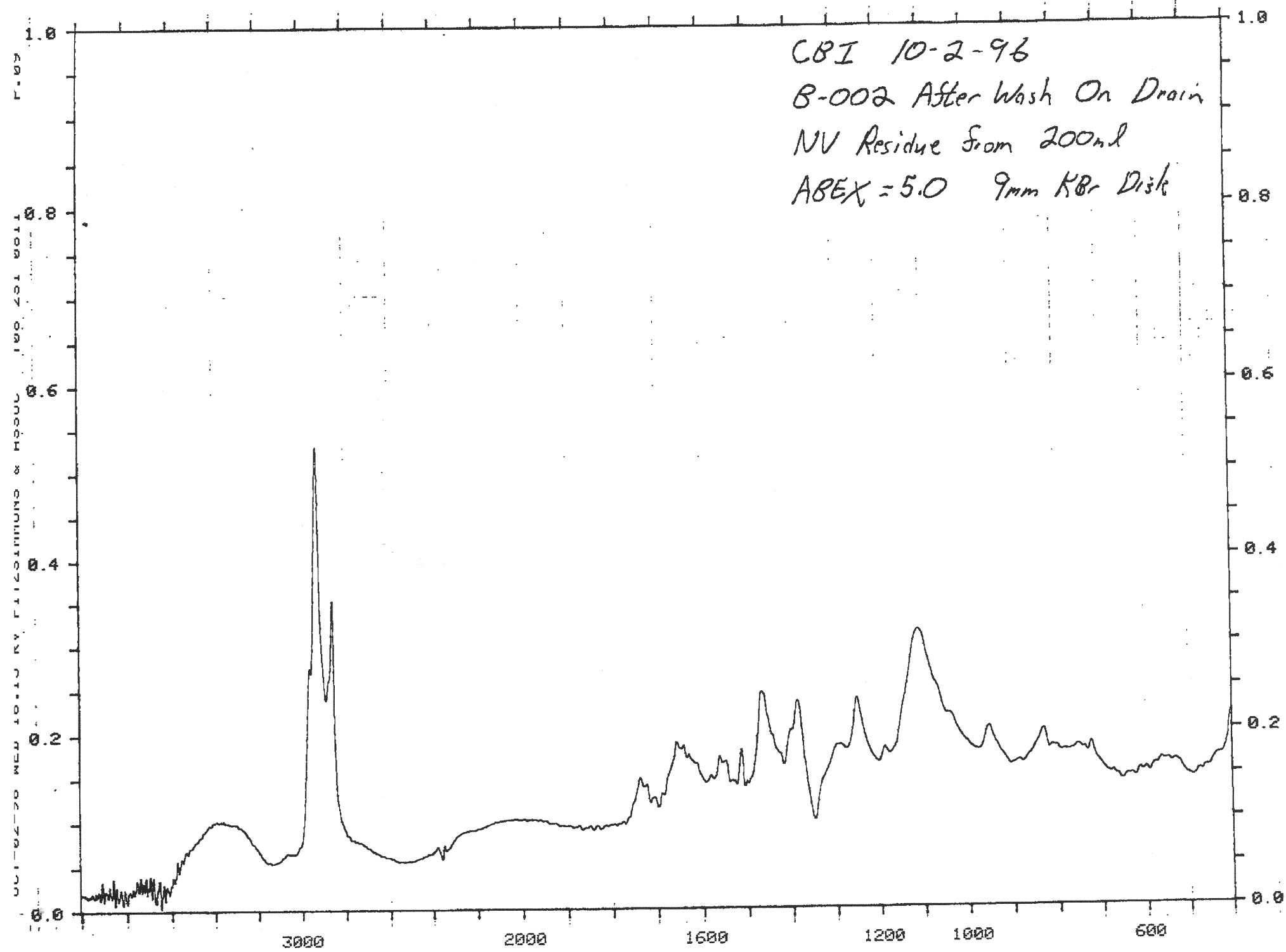


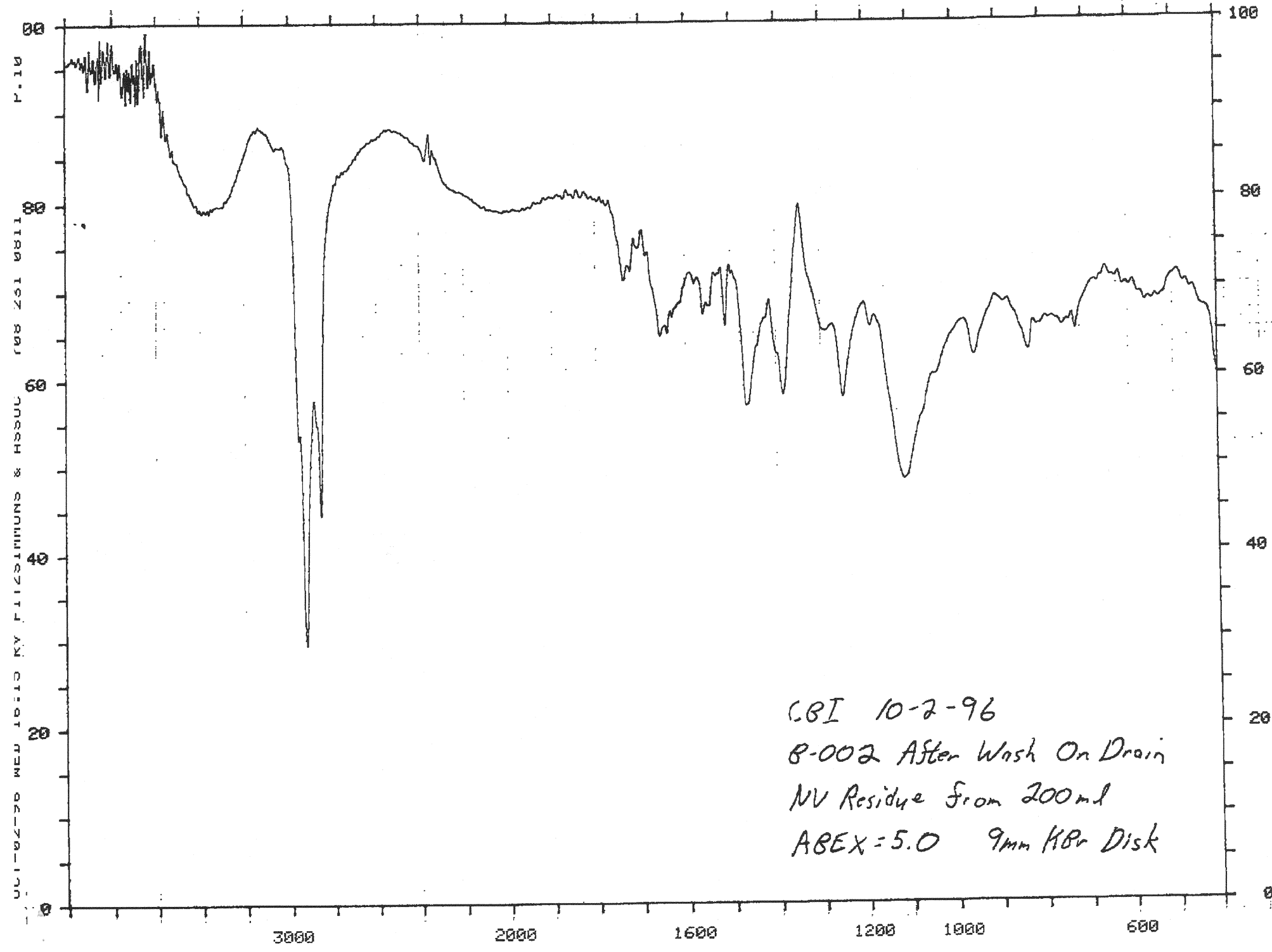
CBI 10-2-96

B-002 After Wash On Drain

NV Residue From 200ml

ABEX = 5.0 9mm KBr Disk





CBI 10-2-96  
B-002 After Wash On Drain  
NV Residue From 200ml  
ABEX-5.0 9mm KBr Disk