22007

Rockwell City (1970)

Well is located just east of CMStPPRR tracks and between Main and Lake St's.

NE NE SE NE 36-88N-33W.

James Tewell, Driller for Varner Well Co.

Rockwell City (1970)

0-55	Clay & Sdy Clay
55-70	Sand
70-105	Clay
105-115	Sd & Gravel
115-160	Sdy Clay
160-175	Sand & Gravel
175-245	Shale
245-290	Sand & Shale
290-340	Shale & Lime Strks
340-350	Lime

Drillers Log To 350

22007

22007

Wednesday, Feb. 4

Dick:

Mr. Gatewood brought in the samples from the Rockwell City well for verification of the top of the Prairie du Chien. Top is between 1525-30. He plans to set casing to 1580 feet.

Mary

Lowell Fowler
Rockwell City
City Clerk.

He is very interested in the new well and wants a copy of the log when completed

W 22007

STATE HYGIENIC LABORATORY, DES MOINES BRANCH
WATER LABORATORY DIVISION
MINERAL ANALYSIS

LAB. NO. 4041
MINERAL NO. 7821
25 Mar 19 70 bj

TOWN Rockwell City COUNTY Calhoun
OWNER OF SUPPLY Municipal
COLLECTOR'S NAME Earle Scheetz
DATE COLLECTED 25 Feb 70 DATE RECEIVED 26 Feb 70
REPORT TO: NAME IGS
ADDRESS Iowa City

FIELD DATA

SOURCE: WELL NAME, NUMBER, POINT OF COLLECTION, DEPTH, CONSTRUCTION DATE, ETC., At well 1970' TD Jan-Feb 1970

WELL PUMPED 24 HRS. AT 750 GPM. DATE OF PREVIOUS SAMPLE New well
WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED Yes
TEMPERATURE % 67F ALKALINITY (ppm $CaCO_3$) P ____ T ____ pH ____
IS A POLYPHOSPHATE BEING USED? No

LABORATORY ANALYSIS
(PARTS PER MILLION)

SPECIFIC CONDUCTANCE K AT 25°C 160 x 10^{-5}. TURBIDITY ____
DISSOLVED SOLIDS 1180 SOLUBLE IRON (Fe) 1.0
TOTAL SOLIDS 1180 SILICA (SiO_2) 11 TOTAL IRON (Fe) 1.0
ALKALINITY (ppm $CaCO_3$) P None T 316 pH 7.05 DATE 26 Feb 70

POSITIVE IONS		NEGATIVE IONS	
K+	29	NO_3– [redacted]	0.5
Na+	110	F–	1.2
Ca++	176	Cl–	13
Mg++	58.3	SO_4--	600
Mn++	< 0.05	HCO_3–	386
Al+++		CO_3--	None

HARDNESS AS $CaCO_3$ 680 ppm 39.7 gpg
Slightly cloudy and yellow-brown in color on receipt in lab.

ANALYST Ryan, Morlan

R. L. MORRIS
JHG PRINCIPAL CHEMIST

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

Local Well No. 088-33W-36 ADAA
Aquifer Code(s) C3SJ Ø1LP
Owner's Name Rockwell City City #4 (1970)
W Number 22007

Water Quality
(ppm)

Card Q

State: IOWA (19) (1 2) County: CALHOUN (13) (3 4) Town: ROCKWELL CITY, IOWA

Well No. Latitude 42 23 39 N (5–11) Longitude 094 37 51 (12–18) Seq. No. 1 (19) Date M D Y 02 25 70 (20–25)

Sampling Depth 1970 (26–29) Type 1 (30) Kx10⁸ 1600 (31–35) pH 7.0 (36–38) Temp. °F 195 (39–41)

SiO_2 11. (42–44) Ca 176 (45–49) Mg 58. (50–53) Na 110. (54–58) K 29. (59–61)

Source No. 3 Q (79–80)

HCO_3 386 (62–65) CO_3 0 (66–67) SO_4 600. (68–72) Cl 13. (73–78)

Card R

Duplicate Columns 1-25 from Card Q

F 1.2 (26–28) NO_3 .5 (29–32) PO_4 (33–35) B (36–38) Al (39–41) Fe 1.0 (42–45)

Mn .05 (46–49) Cu (50–52) Pb (53–54) Zn (55–57)

Solids Determined 1180 (58–63) Calc. (64–69) Hardness Ca,Mg 680 (70–73) Non-Carb. 364 (74–77)

Color (78–79) No. R (80)

Card S

Duplicate Columns 1-25 from Card Q

Br (26–28) I (29–31) Alk. as $CaCO_3$ 316 (32–35) Free CO_2 (36–38) SAR (39–41)

RSC (42–44) ABS (45–47) (48–50)

Alpha (pc/l) (55–57) Beta (pc/l) (58–60) Ra (pc/l) (61–63) U (ug/l) (64–66)

No. S (80)

Recorded by: D. AARONSON

Punched by: T Date:

Published:

DRILLING TIME REPORT

22007

well city

ARM:

NO. 2 ~~FT~~

TYPE OF INDICATOR

WEIGHT ON DRILL PIPE

R.P.M. ROTARY TABLE:

COUNTY:

SEC. TWP. RANGE

TYPE OF RIG Brewster

MUD WEIGHT

MUD VISCOSITY: Varied

CONTRACTOR EAKLE & HOLDER DRILLING CO.

DEPTH FROM	DEPTH TO	ACTUAL DRILLING TIME BEGAN		MINUTES PER	REMARKS	BIT NO.
1460	61	12	12:40	30	(Lime & shale)	
	62		1:22	42		
	63		1:55	33		
	64		2:10	15		
	1465		2:35	25		
	66		3:00	25		
	67		3:20	20		
	68		3:40	20		
	69		4:00	20		
	1470		4:22	22	conn check motors	
	71	4:35	4:53	18		
	72		5:15	22		
	73		5:35	20		
	74		5:55	20		
	1475		6:18	23		
	76		6:37	19		
	77		7:15	38		
	78		7:48	33		
	79		8:17	29		
	1480		9:35	78	correct watches	
	81	9:35	10:45	50	go through pump	
	82		11:04	19		
	83		11:12	8		
	84		11:14	2	SAND	
	1485		11:17	3		
	86		11:20	3		
	87		11:25	5		
	88		11:30	5		
	89		11:36	6	CIRC. 35 MIN FOR SAMPLE	
	1490		11:41	5		

DESIGNED A.M. AND P.M. TIME.

RECORD TIME TOUR IS CHANGED UNDER REMARKS.

ACTUAL DRILLING TIME IS TIME SPENT IN DRILLING THE DEPTH. SHUT DOWN TIME IS SPENT SHUT DOWN FOR REPAIRS, ROUND TRIPS, WATER, ETC. SHOW WHEN BIT IS CHANGED AND KIND OF NEW BIT. MENTION ROUND TRIPS IN REMARKS COLUMN. FILL OUT THIS FORM FROM TOP TO BOTTOM OF HOLE.

DRILLING TIME REPORT

22007

COMPANY: Rockwell City

COUNTY:

FARM:

SEC. TWP. RANGE

NO. #2

TYPE OF RIG: BREWSTER

TYPE OF INDICATOR:

MUD WEIGHT:

WEIGHT ON DRILL PIPE:

MUD VISCOSITY:

R.P.M. ROTARY TABLE:

CONTRACTOR: VARNER EARLE & HOLDER DRILLING CO.

DEPTH FROM	DEPTH TO	ACTUAL DRILLING TIME BEGAN		MINUTES PER	REMARKS	BIT NO.
1490	1491	12:15	12:20	5	SAND	
	92		12:24	4		
	93		12:28	4		
	94		12:32	4		
	95		12:36	4		
	96		12:40	4		
	97		12:45	5		
	98		12:52	7		
	99		12:59	7		
	1500	~~X~~	~~X~~		KELLY 2' SHORT	
	01	~~X~~	~~X~~		CONN @ 1501 SER RIG	
	02	1:11	1:14	3	GREASE SWIVEL	
	03		1:18	4		
	04		1:22	4		
	05		1:25	3		
	06		1:30	5		
	07		1:35	5		
	08		1:40	5		
	09		1:47	7		
	15 10		1:54	7	SAND.	
	11		1:57	3		
	12		2:01	4		
	13		2:05	4		
	14		2:12	7		
	15		2:16	4		
	16		2:20	4		
	17		2:23	3		
	18		2:26	3		
	19		2:33	7		
	15 20		2:42	9	SAND	

DESIGNED A.M. AND P.M. TIME.

RECORD TIME TOUR IS CHANGED UNDER REMARKS.

ACTUAL DRILLING TIME IS TIME SPENT IN DRILLING THE DEPTH, SHUT DOWN TIME IS SPENT SHUT DOWN FOR REPAIRS, ROUND TRIPS, WATER, ETC. SHOW WHEN BIT IS CHANGED AND KIND OF NEW BIT. MENTION ROUND TRIPS IN REMARKS COLUMN. FILL OUT THIS FORM FROM TOP TO BOTTOM OF HOLE.

DRILLING TIME REPORT

22007

COMPANY: Rockwell City, Iowa
FARM: City Well
NO. # 2
TYPE OF INDICATOR
WEIGHT ON DRILL PIPE
R.P.M. ROTARY TABLE:

COUNTY:
SEC. TWP. RANGE
TYPE OF RIG: Brewster
MUD WEIGHT
MUD VISCOSITY: Varnes
CONTRACTOR: EAKLE & HOLDER DRILLING CO.

DEPTH FROM	DEPTH TO	ACTUAL DRILLING TIME BEGAN		MINUTES PER	REMARKS	BIT NO.
1520	1521	2:42	2:47	5	SAND	
	22		2:52	5		
	23		2:58	6		
	24		3:06	8	X	
	25		3:15	9		
	26		3:27	12		
	27		3:38	11		
	28		3:48	10		
	29		3:59	11		
	1530		4:09	10	SAND & DILO.	
	31		4:20	11	CONN. @ 1531	
	32	4:31	4:41	10		
	33		4:51	10		
	34		5:01	10		
	35		5:10	9		
	36		5:20	10		
	37		5:30	10	DOLOMITE & SAND	
	38		5:45	15		
	39		5:56	11		
	1540		6:07	11		
	41		6:20	13		
	42		6:39	19		
	43		6:51	12		
	44		7:00	9		
	45		7:11	11		
	46		7:23	12		
	47	7:34	7:51	17		
	48		8:00	9		
	49		8:13	13		
	1550		8:32	19		

DESIGNED A.M. AND P.M. TIME.

RECORD TIME TOUR IS CHANGED UNDER REMARKS.

ACTUAL DRILLING TIME IS TIME SPENT IN DRILLING THE DEPTH. SHUT DOWN TIME IS SPENT SHUT DOWN FOR REPAIRS, ROUND TRIPS, WATER, ETC. SHOW WHEN BIT IS CHANGED AND KIND OF NEW BIT. MENTION ROUND TRIPS IN REMARKS COLUMN. FILL OUT THIS FORM FROM TOP TO BOTTOM OF HOLE.

VARNER WELL & PUMP CO.

DUBUQUE, IOWA

WELL TEST DATA SHEET

Job Rockwell City

Location City well #4

Date tested February 24, 1970 Start

Tested by Varner Well and Pump Co.

Dia. of well 16" x 10"

Depth of well 1970

Length of airline 410

Non-pumping level 240'

Orifice size 6 x 8

Pump used: Driver 1091 Int.

Column and shaft 6" x 1¼"

Bowls 8 stage 12MA - DP 509

Manufacturer Peerless

Serial No.

TIME	PIZOMETER READING (IN.)	G. P. M.	AIR GAUGE READING (FEET)	PUMPING LEVEL	DRAWDOWN	DISCH. PRESSURE LBS.	DISCH. PRESSURE FEET	TOTAL PUMPING HEAD	TEMP.	REMARKS
4:15	25"	750	70	340	100	0	0	340	61°	START OF TEST
4:30	25	750	70	340	100	0	0	340		Clear
5:00	25	750	70	340	100	0	0	340		Clear
5:30	25	750	70	340	100	0	0	340		Clear
6:00	25	750	70	340	100	0	0	340		Clear
6:30	25	750	70	340	100	0	0	340		Clear
7:00	25	750	70	340	100	0	0	340		Clear
7:30	25	750	70	340	100	0	0	340		Clear
8:00	25	750	70	340	100	0	0	340		Clear
8:30	25	750	75	335	95	0	0	335		Clear
9:00	25	750	75	335	95	0	0	335		Clear
9:30	25	750	75	335	95	0	0	335		Clear
10:00	25	750	75	335	95	0	0	335		Clear
10:30	25	750	75	335	95	0	0	335		Clear
11:00	25	750	75	335	95	0	0	335		Clear
11:30	25	750	75	335	95	0	0	335		Clear
12:00	25	750	75	335	95	0	0	335		Clear
12:30	25	750	75	335	95	0	0	335		Clear
1:00	25	750	75	335	95	0	0	335		Clear
1:30	25	750	75	335	95	0	0	335		Clear
2:00	25	750	75	335	95	0	0	335		Clear
2:30	25	750	75	335	95	0	0	335		Clear
3:00	25	750	75	335	95	0	0	335		Clear
3:30	25	750	75	335	95	0	0	335		Clear
4:00	25	750	75	335	95	0	0	335		Clear
4:30	25	750	75	335	95	0	0	335		Clear

DUBUQUE, IOWA

WELL TEST DATA SHEET

Job Rockwell City

Location City well #4

Date tested February 24, 1970

Tested by Varner Well and Pump Co.

Dia. of well 16" x 10"

Depth of well 1970

Length of airline 410

Non-pumping level 240'

Orifice size 6 x 8

Pump used: Driver 1091 Int.

Column and shaft 6" x 1½"

Bowls 8 stage 12MA - 509 IMP

Manufacturer Peerless

Serial No.

	TIME	PIZOMETER READING (IN.)	G. P. M.	AIR GAUGE READING (FEET)	PUMPING LEVEL	DRAWDOWN	DISCH. PRESSURE LBS.	DISCH. PRESSURE FEET	TOTAL PUMPING HEAD	TEMP.	REMARKS
AM	5:00	25" o	750 o	75	335	95 o	0	0 o	335		START OF TEST
	5:30	25	750	75	335	95	0	0	335		Clear
	6:00	25	750	75	335	95	0	0	335		Clear
	6:30	25	750	75	335	95	0	0	335		Clear
	7:00	25	750	75	335	95	0	0	335		Clear
	7:30	25	750	75	335	95	0	0	335		Clear
	8:00	25	750	75	335	95	0	0	335		Clear
	8:30	25	750	75	335	95	0	0	335		Clear
	9:00	25	750	75	335	95	0	0	335		Clear
	9:30	25	750	75	335	95	0	0	335		Clear
	10:00	25	750	75	335	95	0	0	335		Clear
	10:30	25	750	75	335	95	0	0	335		Clear
	11:00	25	750	75	335	95	0	0	335		Clear
	11:30	25	750	75	335	95	0	0	335		Clear
PM	12:00	25	750	75	335	95	0	0	335		Clear
	12:30	25	750	75	335	95	0	0	335		Clear
	1:00	25	750	75	335	95	0	0	335		Clear
	1:30	25	750	75	335	95	0	0	335		Clear
	2:00	25	750	75	335	95	0	0	335		Clear
	2:30	25	750	75	335	95	0	0	335		Clear
	3:00	25	750	75	335	95	0	0	335		Clear
	3:30	25	750	75	335	95	0	0	335		Clear
	4:00	25	750	75	335	95	0	0	335		Clear
	4:30	25	750	75	335	95	0	0	335		Clear
	5:00	25	750	75	335	95	0	0	335		Clear
				End of Test							

VARNER WELL & PUMP CO.

DUBUQUE, IOWA

WELL TEST DATA SHEET

Job Rockwell City

Location City well #4

Date tested February 28, 1970

Tested by Varner Well and Pump Co.

Dia. of well 16" x 10"

Depth of well 1970

Length of airline 410

Non-pumping level 240'

Orifice size 6 x 8

Pump used: Driver 1091 Int.

Column and shaft 6" x 1¼"

Bowls 8 stage 12MA - 509 IMP

Manufacturer Peerless

Serial No.

TIME	PIZOMETER READING (IN.)	G. P. M.	AIR GAUGE READING (FEET)	PUMPING LEVEL	DRAWDOWN	DISCH. PRESSURE LBS.	DISCH. PRESSURE FEET	TOTAL PUMPING HEAD	TEMP.	REMARKS
Start	0	0	210		0		0			START OF TEST
8:45	25	750	120	290	90		5 Minute Readings			
8:50	25	750	110	300	100					
8:55	25	750	110	300	100					
9:00	45	1040	55	355	155		Raise Pump			
9:05	42	1000	45	365	165					
9:10	42	1000	40	370	170					
9:15	42	1000	40	370	170					
9:20	51	1100	10	400	200		Raise Pump			
9:25	51	1100	8	402	202					
9:30	51	1100	6	404	204					
9:45	51	1100	6	404	204		15 Minute Reading			
10:00	51	1100	6	404	204					
10:15	51	1100	6	404	204					
10:30	51	1100	6	404	204					

check here drawdown figures OK

Sheet #3 of 3 sheets

Welex

MICRO-SEISMOGRAM® LOG-CASED HOLE

COMPANY CITY OF ROCKWELL CITY

WELL WATER WELL #3 "1970"

FIELD

COUNTY CALHOUN STATE IOWA

COMPANY / WELL / FIELD / County / State

Location ROCKWELL CITY

Sec. Twp Rge

Other Services:

Permanent Datum Elev.

Log Measured From KELLY BUSHING Ft. Above Perm. Datum

Drilling Measured From

Elev.: K.B. D.F. G.L.

Run No.	ONE	
Date & Time Survey	2-11-70 100 PM.	
Date & Time Cementing	2-6-70	
Type Cementing Operation	PRIMARY	
Depth Driller	-	
Depth Welex	1550	
Logged Interval	1545 to	to
Casing Driller	10¾" @ 1592	@
Float Coller—D.V. Tool	- -	
Squeeze Depth	-	
Amount & Type Cement	2000 sks	
Amount & Type Admix	COMMON	
Type Fluid in Hole	WATER	
Fluid Level	FULL	
Salinity PPM Cl		
Weight lb/gal—Vis.		
Approx. Logged Cem. Top	722'	
Calculated Cement Top	-	
Max. Hole Temperature	- °F.	°F.
Tool No.		
Spacing Recorded	4'	
Equipment—Location	8042 GB KANSAS	
Recorded by	CURTIS	
Witnessed by	MR. WATTS	

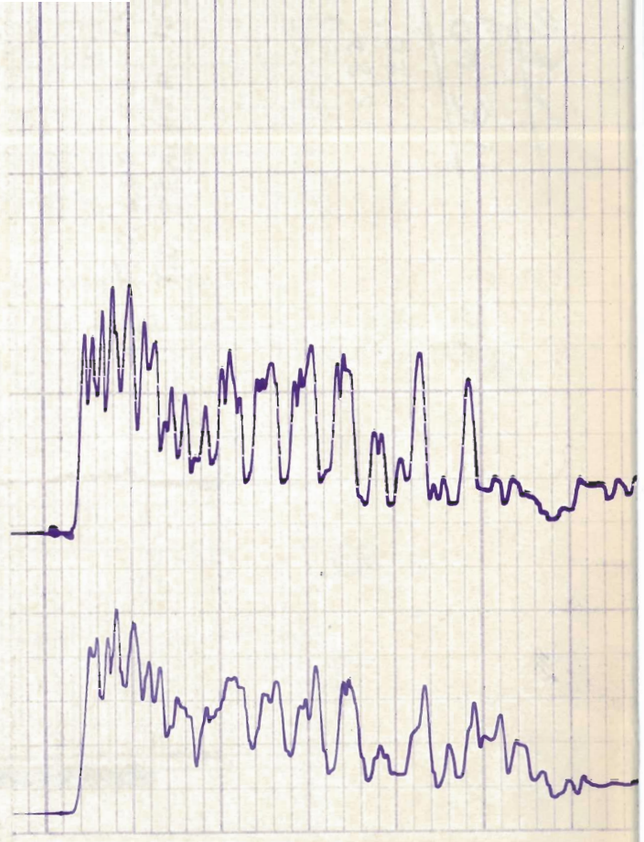
BORE HOLE RECORD

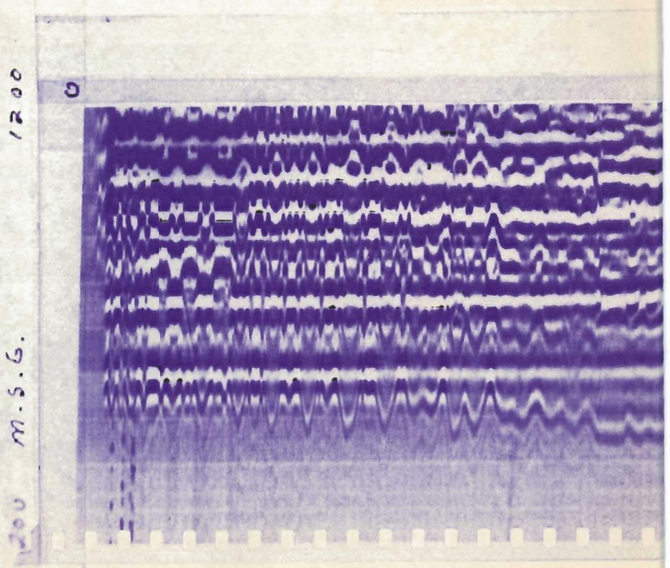
Bit Size	From	To
15"	640	1590
21"	242	640
26"	0	242

CASING RECORD

Csg. Size	Wt.	From	To	Centralized Interval	Scratched Interval	Open Perforations
10¾"		610	1592			NONE
16"		0	610			
24"		0	242			

SERVICE TICKET NO. 37885 REMARKS: NO BOND POOR BOND GOOD BOND





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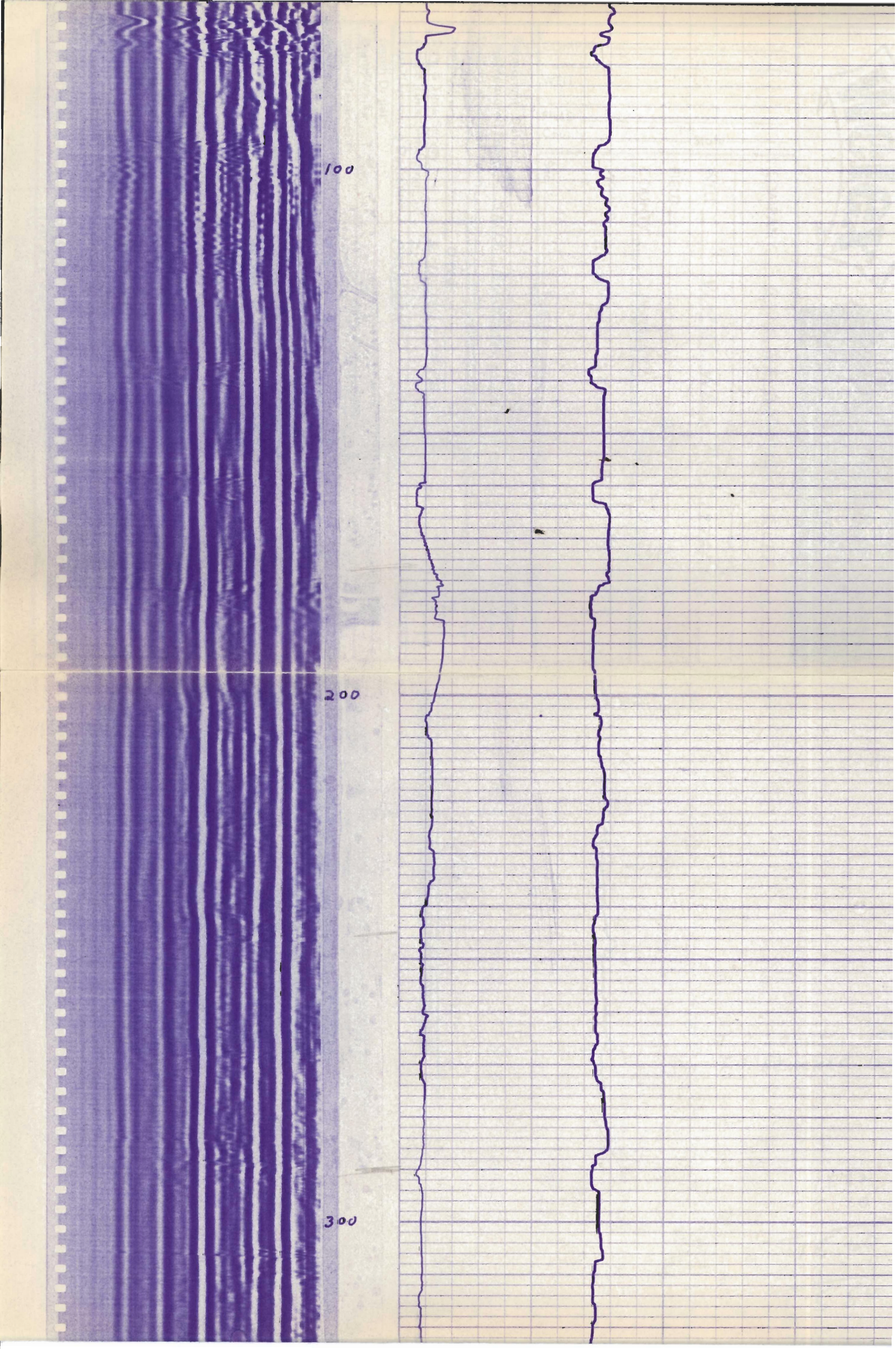
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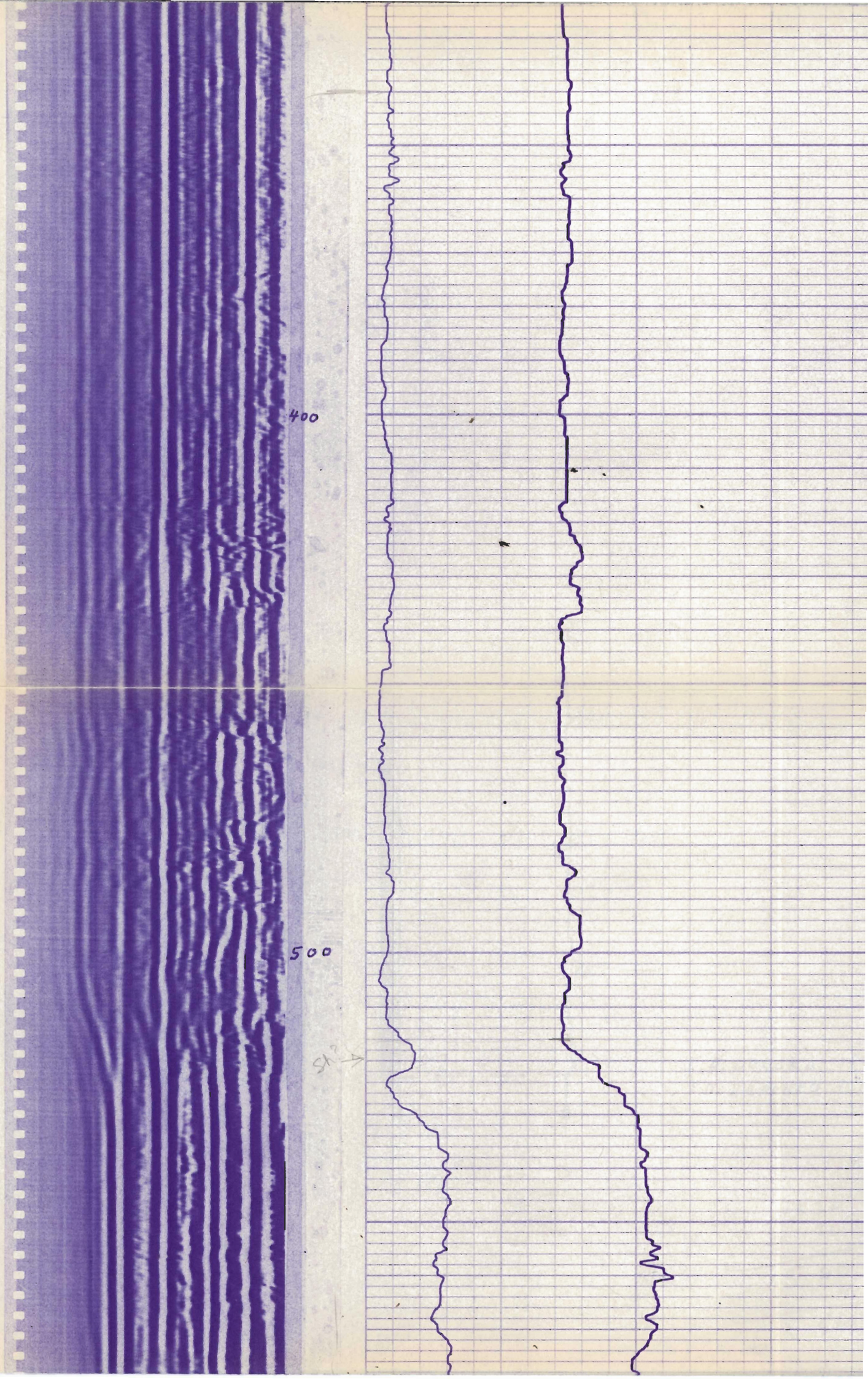
200
300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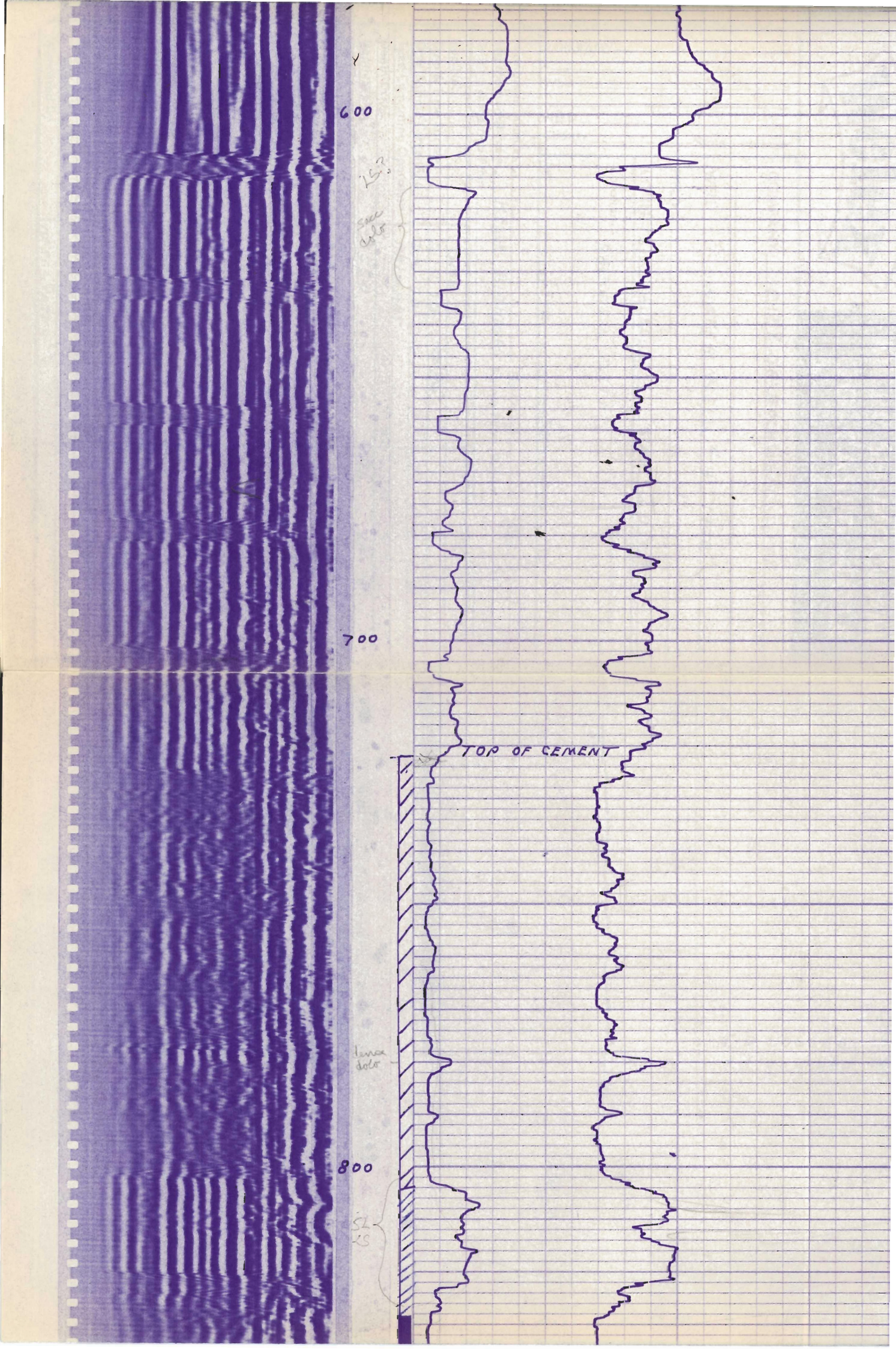
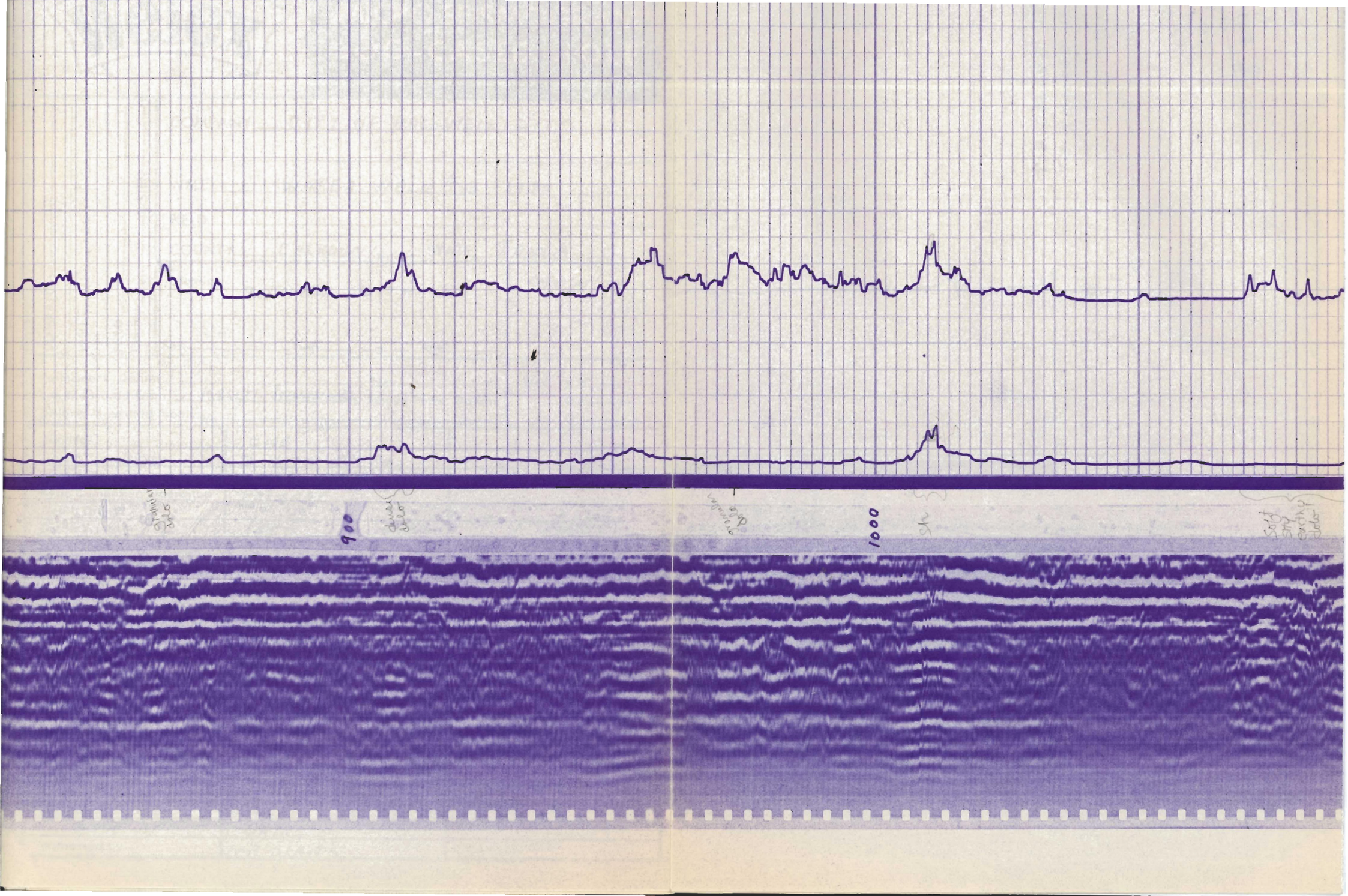
500


600
700
800
TOP OF CEMENT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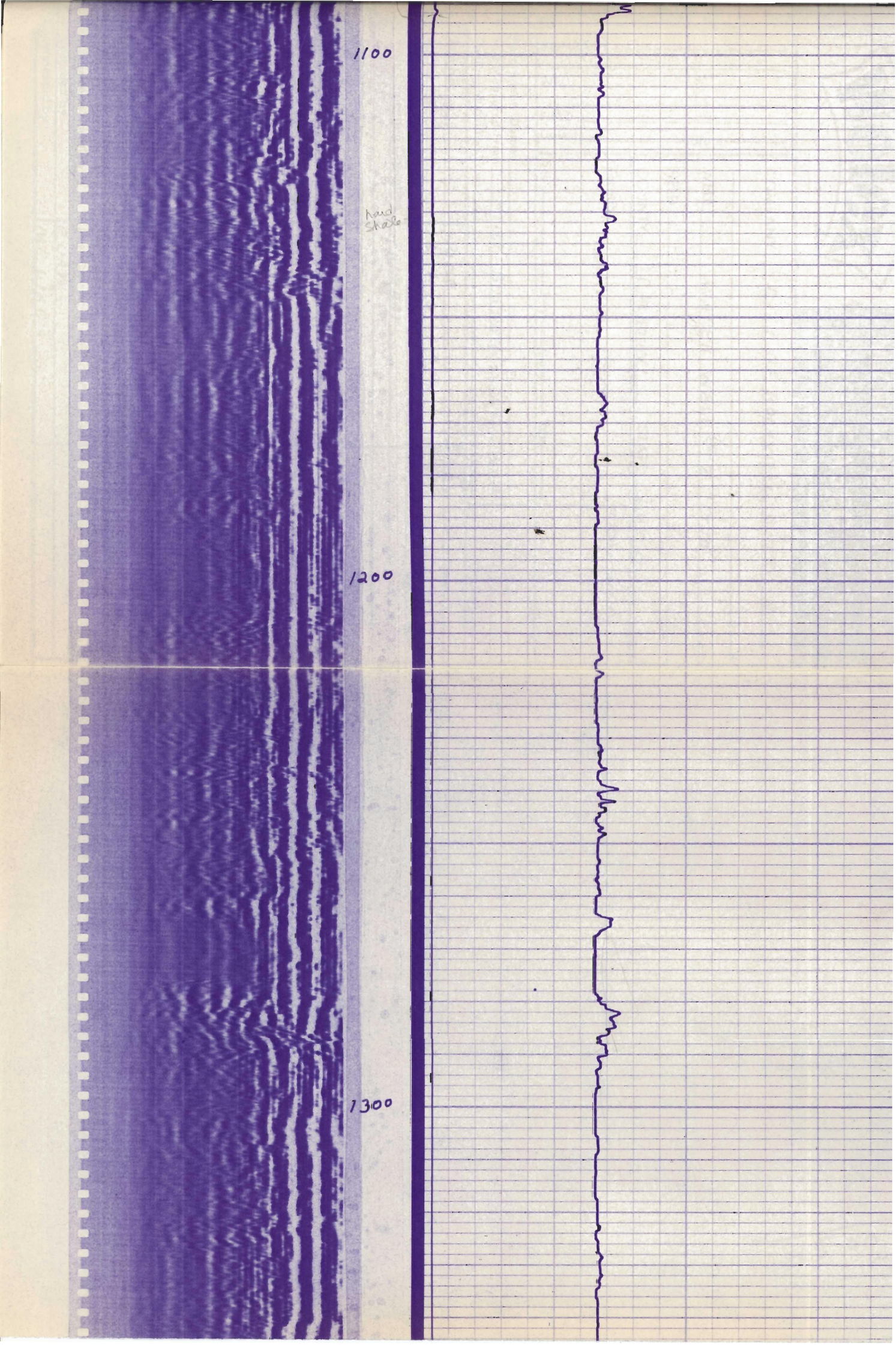
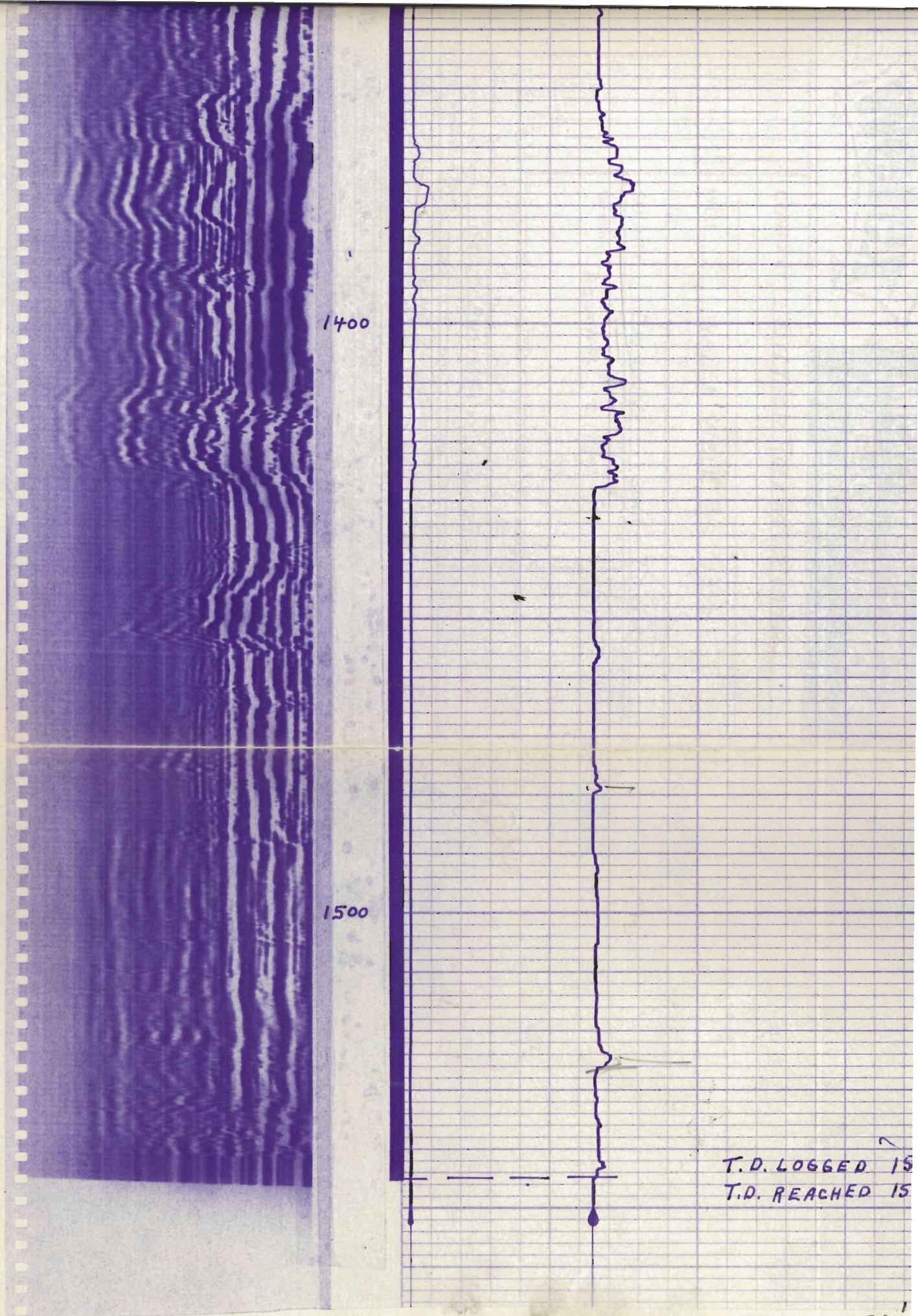

1100
hard shale
1200
1300



1582'
20'

1560
4

6556

Calhoun

1

August 3, 1956

Mr. X. P. Boyles
Iowa Department of Health
Fort Dodge, Iowa

Dear Mr. Boyles:

We are replying to your letter of July 19 concerning the proposed municipal well development at Rinard, Iowa. The following pertinent data and comments on the geology and ground-water conditions in this vicinity have been assembled for you from available information in the files of the State-Federal Geological Survey investigations.

The flat surface of the Mankato glaciation at Rinard has an altitude of 1170 feet above sea level. Based on this altitude a generalized log of the stratigraphic units expected to occur beneath Rinard is outlined as follows:

Formation	Thickness (ft.)	Depth Range (ft.)
Quaternary system		
Pleistocene series (pebbly glacial clay; probably some interbedded sand and gravel)	125±	0-125±
Pennsylvanian system		
Desmoinesian series (mostly shale; may include some thin sandstone and limestone)	160	125±-285
Mississippian system		
St. Louis formation (limestone and sandstone)	25	285-310
Warsaw formation (dolomite, cherty)	50	310-360

Formation	Thickness (ft.)	Depth Range (ft.)
Mississippian system (continued)		
Keokuk-Burlington (dolomite and limestone, some chert)	60	360-420
Gilmore City limestone (oolitic in some layers)	70	420-490
Hampton formation (dolomite, cherty in lower part)	200	490-690
Prospect Hill siltstone	10	690-700
Maple Mill shale		700-

A different starting altitude probably will modify all these depth figures slightly.

According to the 1950 census the population of Rinard is 115 persons. For a community of this size a supply of 25 to 30 gallons of water per minute probably will be adequate.

Sufficient water might be encountered in a sand and gravel bed within or at the base of the glacial drift. We have no information on wells completely penetrating the glacial section in this locality. Several years ago a 60-foot private well in town was reported to have 24 feet of water in it, but would not provide more than ordinary household needs. A more dependable sand reservoir might occur in the lower part of the drift or immediately overlying the bedrock. The Lohrville Town Well (1946) obtained its supply from a bed of sand and gravel between 178 and 200 feet. However, the drift material is considerably thicker there than at Rinard. Actual drilling will provide the most reliable information on the presence of a suitable sand bed beneath Rinard. Mineral analysis of the water from the Lohrville well indicates it to be very hard and high in iron.

Small quantities of water may occur in the sandstone layers in the Pennsylvanian section, but this generally does not seem to be a promising source and the water might not be satisfactory. Wells drilled below the Pennsylvanian rocks will have to case out this section to prevent the weak shales from caving into the hole.

The limestones and dolomites of Mississippian age between about 285 and 700 feet may yield plenty of water for a municipal well. The

Farnhamville town well 776 feet deep obtained 35 gallons a minute with 75 feet of drawdown from a static level of 100 feet, and the Sherwood R.E.A. well on the west side of Calhoun County produced 100 gallons a minute with 15 feet of drawdown. On the other hand, there are some locations where these strata do not yield much water owing to the tightly cemented character of the limestone. In this case, acidizing the water-bearing zones may appreciably increase the yield. The water from the Mississippian rocks may also be rather hard (although probably not as hard as the water from the deep drift aquifers as at Lohrville) and somewhat mineralized. It probably will still be acceptable for most purposes including drinking.

Additional water zones can be expected in the deeper formations. The water from these rocks is of questionable quality, however, and the Jordan sandstone at great depth seems to be the next promising source.

In summary, this disussion indicates at least two sources of water supply at Rinard--glacial sand and gravel layers in the lower part of the unconsolidated drift material, and limestones and dolomites of Mississippian age between 285 and 700 feet. The water from the Mississippian rocks might be better than water from the deep drift aquifers. Acidizing the limestone water zones might appreciably increase the yield from these strata if necessary.

We hope this report will assist you in solving the water supply problem at Rinard. We shall be pleased to hear of any drilling developments there. If we can provide further information in this matter or if you have any questions remaining, please feel free to write us.

Very truly yours,

H. G. Hershey

Hgh:pjh:1

Iowa
Iowa Department of Health
REGIONAL HEALTH SERVICE
NO. 2
Fort Dodge, Iowa

IN REPLYING
ADDRESS
X. P. Boyles
Regional Engineer

EDMUND G. ZIMMERER, M. D.
COMMISSIONER
DES MOINES, IOWA

4

July 19, 1956

H. G. Hershey,
Director & State Geologist
Iowa Geological Survey
Iowa City, Iowa

Dear Dr. Hershey:

Re: Municipal well proposal at Rinard, Iowa

The town of Rinard, located in Calhoun county, is negotiating for the development of a municipal water supply. A well location survey has been made and a location selected at the west end of the main street. This particular location would be in the southwest quarter of Sec. 17, T. 89 87 N, R. 31 W.

We would appreciate any information you may be able to supply relative to anticipated geology and general forecast of possibilities.

Very truly yours,

X. P. Boyles
Regional Engineer

XPB:DES
cc: Div. of Public Health Engineering
Iowa State Department of Health

GW Calhoun Co. Gen Data

MEMORANDUM 2/28/68

TO: Dr. H. G. Hershey

FROM: Richard C. Northup

RE: Proposed well for village of Rinard, Calhoun County.

The village of Rinard in Calhoun County is considering a well capable of supplying water to 24 families. They will need a minimum of 15 gpm, but would like 50 gpm if possible. Bill Beemer called me yesterday evening, asking that I get some information together by 8:30 a.m. this morning when he was to meet with the town council to discuss the matter. He called back as arranged, and I was able to give him an idea from logs of the town wells at Somers, Lohrville, and Farnhamville. Their best possibilities seem to lie in the Mississippian section, which should be reached from around 250 to 300 feet. A hundred to two hundred foot penetration of the Mississippian should provide the desired amount of water. I emphasized the fact that the top of the Mississippian is erosional and hence the thickness of the Pennsylvanian can vary quite a bit within a short distance and that the Mississippian top could hence be deeper than three hundred feet, as at Lohrville, which did not reach the Mississippian until 510 feet.

Noted HGH