Production data: Date _____

Static depth to water 50.40 Measuring point Top of 6" casing 4' above L.S.
Pumping level ~~65.60~~ at _____ g.p.m.

65.60 21 " after 7 hrs pumping

Specific capacity _____ g.p.m. per ft. drawdown; Temperature _____ °F.

Pump data; Type pump _____ Column Dia. _____ Length _____
Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____
Power _____ Airline _____
Estimated rate of production: _____ g.p.m. for _____ hrs. a day
Use of water _____

WATER AIALYSES (in parts per million)

Date samples	6/3/48			
Sampled by	W.F.H.&C.			
Total solids	459.			
Insoluble matter	29.5			
Alkalinity (Meo)	384.			
Alkalinity (Phn)	None			
pH	7.6			
Fe_2O_3- Mn_2O_3-Al_2O_3	9.5			
Alkali as sodium	50.6			
Calcium	79.8			
Magnesium	30.2			
Iron (unfiltered)	1.5			
Manganese	None			
Nitrate	1.3			
Fluoride	0.6			
Chlordie	4.			
Sulfate	28.6			
Bicarbonate	468.5			
Hardness (ppm)	326.			
Hardness (gpg)	19.			

Remarks _____

Laboratory data: Sample storage location CD2-3

Sample range 0-120 No. spls. 34 No. dupls. & cond. 35 Fair
Spls. prepared by RKS & WJB Washed range 82-120 by EMR
Driller's log and cond. None

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
Microscopic study 0-120 strip log 8-12-48
Gen. log _____ Correl. by R. Wahlsen

W-3235

IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

RECORD OF WELL



Location:

Town: Salem (N E / S W): County Henry

SW NW NW sec. 27 T 70 N., R. 7 E. W. Twp.

Well name and number Salem Town Well No. 2, (1948)

Owner Town of Salem Address

Tenant Address

Contractor T.W. Van Winkle & Son Address Salem, Iowa

Drillers Leland Van Winkle

Drilling dates Started May 26, 1948 Finished June 1, 1948

Well data:

Elevations: Drilling curb 723 feet; Land surface 723 feet

Determined by hand level by W.E. Hale

Topographic position Upland

Total depth: Reported 120 feet, Measured feet

Drilling method Cable tool

Hole and casing date 88'2" of 6" pipe from +4' to 84'

Original depth to water 46.40 ft. ~~below~~ above Land surface Date June 3, 1948

Original elevation of water level ft.; Source of data

Sources of water: Principal ; Others

RESULTS OF PUMPING TEST MADE ON SALEM TOWN WELL NO. 2

Salem, Iowa

June 3, 1948

NAME: Salem Town Well No. 2 (1948).

LOCATION: SW¼ NW¼ NW¼ Sec. 27, T. 70 N., R. 7 W., Henry County.

ELEVATION: Land surface about 723 feet above sea level.

OWNER: Town of Salem.

ENGINEER: Stanley Engineering Company, Muscatine, Iowa.

CONTRACTOR: T. W. Van Winkle & Son, Salem, Iowa.

DRILLER: Leland Van Winkle.

DRILLING DATES: Started May 26, 1948. Finished June 1, 1948.

TOTAL DEPTH: 120 feet.

CASING & HOLE RECORD: 88'2" of 6" pipe from +4' to 84'.
Open 6" hole from 84 to 120'.

CHIEF AQUIFER: Mississippian dolomite and sandstone.

MEASURING POINT: Water level in Well No. 2 measured from top of clamp 4.0' above land surface. Water level in Well No. 1 measured below top of 2" coupling, 2.6' above land surface. Reference point of Well No. 2 is 1.4' above reference point of Well No. 1 by hand level.

DISCHARGE MEASUREMENTS: Well No. 1 is 212.5' north of Well No. 2. Discharge rate obtained by measuring into barrel of known capacity.

TEMPERATURE MEASUREMENTS: Water temperature measured at end of 7' of 3" discharge pipe.

Test observed by W. E. Hale.

RESULTS OF PUMPING TEST MADE ON SALEM TOWN WELL NO. 2, June 3, 1948

Time	Depth to Water (feet)	Discharge Rate G.P.M.	Temp. °F.	Depth to Water (No. 1)	Remarks
June 3					
7:56 am				48.93	
8:05	50.40				
8:13				48.91	
8:25	50.32				
8:45	50.34				
8:48				48.92	
9:00					Pumping started.
9:01	55.2			49.26	
9:02				49.62	
9:03	56.05			49.97	Water cloudy.
9:04				50.24	
9:05				50.48	
9:06	57.05	20.2		50.68	
9:07				50.87	
9:08				51.08	
9:09	57.4			51.13	
9:10				51.28	
9:12				51.49	
9:13	57.9	20.4			
9:14				51.72	
9:16	58.25			51.90	
9:18	58.4			52.08	
9:22	58.65			52.44	
9:25				52.60	
9:26	59.1				Water cloudy, trace sediment.
9:30	59.4	20.5			
9:33	59.55		54		
9:36				53.17	
9:37	59.75				
9:38				53.25	
9:40				53.33	
9:41	59.90	20.5			
9:42				53.42	Water cloudy yellow.
9:48	60.2				
9:55	60.4				
10:03	60.8				
10:06	60.9	20.5	54		Water clearing.
10:12				54.37	
10:15	61.0				
10:16				54.49	
10:20				54.58	
10:21	61.15				
10:30	61.5	21.1			Water cloudy, trace sediment.
10:35				54.99	
10:39				55.10	
10:43	61.9			55.20	
10:47				55.28	

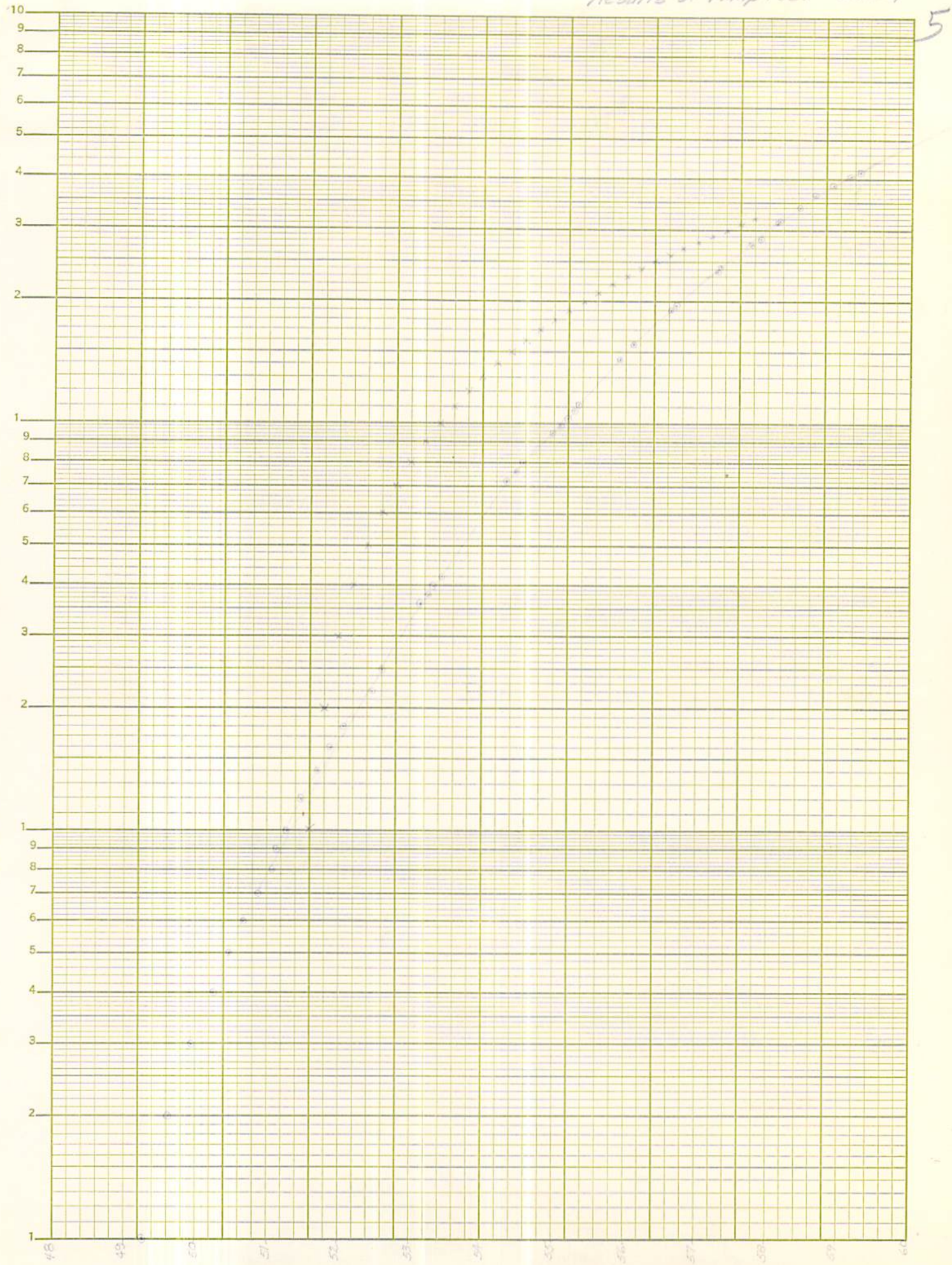
Time	Depth to Water (feet)	Discharge Rate G.P.M.	Temp. °F.	Depth to Water (No. 1)	Remarks
June 3					
10:51 am	62.05			55.36	
11:00	62.3				
11:16	62.55	21.1			Water clearing.
11:24				55.91	
11:25	62.65				
11:36				56.11	
11:38	62.7				
11:54	63.0	21.1			Water almost clear, trace sediment.
12:10 pm	63.15			56.62	
12:15				56.70	
12:30	63.60	21.0			
12:46	63.7				
12:57				57.26	
1:03				57.33	
1:04	63.92	21.0			
1:17	64.15				
1:27	64.20				
1:37				57.78	
1:38	64.40				
1:45	64.45			57.86	Water almost clear.
2:05	64.55				
2:11				58.13	
2:15				58.16	
2:20		20.5			
2:27	64.75				
2:40				58.42	
2:47	64.93	20.6			
2:45				58.46	
3:01	65.0			58.62	
3:06				58.65	
3:14	65.1	20.5	54		Water almost clear, trace sediment.
3:24				58.90	
3:30				58.96	
3:39	65.6	20.7			Water slightly cloudy, trace dolomite sand.
3:46				59.15	
3:58				59.26	
4:00:20					Pump stopped.
4:00:50	60.6			59.02	Recovery measurements.
4:01:20				58.80	
4:02:20	59.95			58.32	
4:03:20	59.50			57.99	
4:04:20	59.20			57.71	
4:05:20	58.95			57.47	
4:06	58.75			57.27	

Time	Depth to Water (feet)	Discharge Rate G.P.M.	Temp. °F.	Depth to Water (No. 1)	Remarks
June 3					
4:07	58.55			57.10	
4:08	58.42			56.95	
4:09	58.25			56.81	
4:10	58.15			56.68	
4:12				56.48	
4:14				56.26	
4:15	57.55				
4:16				56.09	
4:18				55.92	
4:20	57.20			55.80	
4:25	56.90				
4:27				55.43	
4:30	56.68			55.29	
4:35	56.48				
4:40	56.32				
4:41				54.92	
4:45	50.11				
4:48				54.73	
4:50	56.04				
4:57				54.50	
5:00	55.82				

Salem Iowa

Results of Pump test June 3, 1948

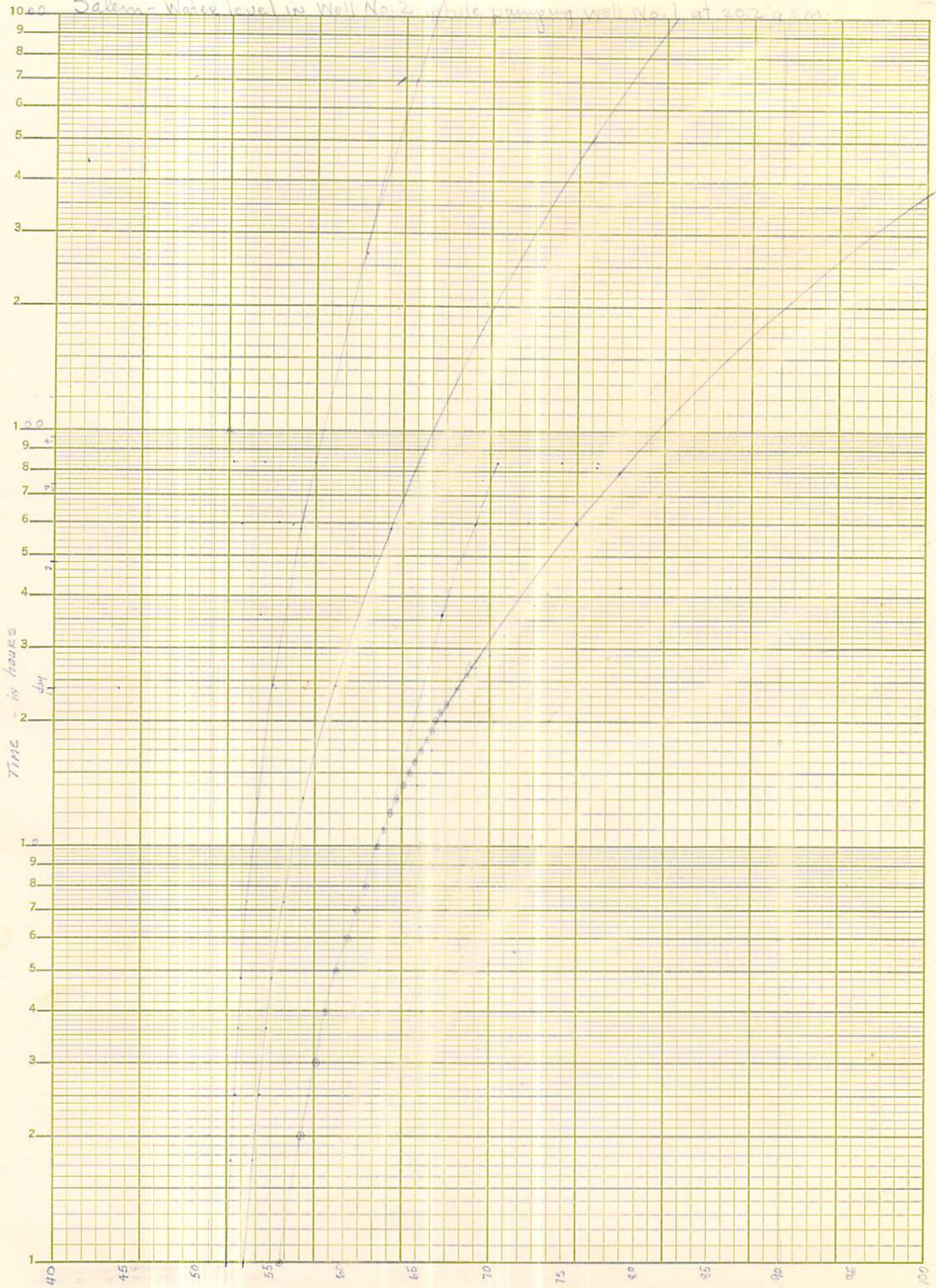
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KEUFFEL & ESSER CO., N. Y. NO. 358-70
Semi-Logarithmic, 3 Cycles × 60 divisions, 6th lines accented.
MADE IN U. S. A.

Salem, Henry Co.
June 23-24, 1948

Salem - Water level in Well No. 2 while pumping well No. 1 at 20 g.p.m.

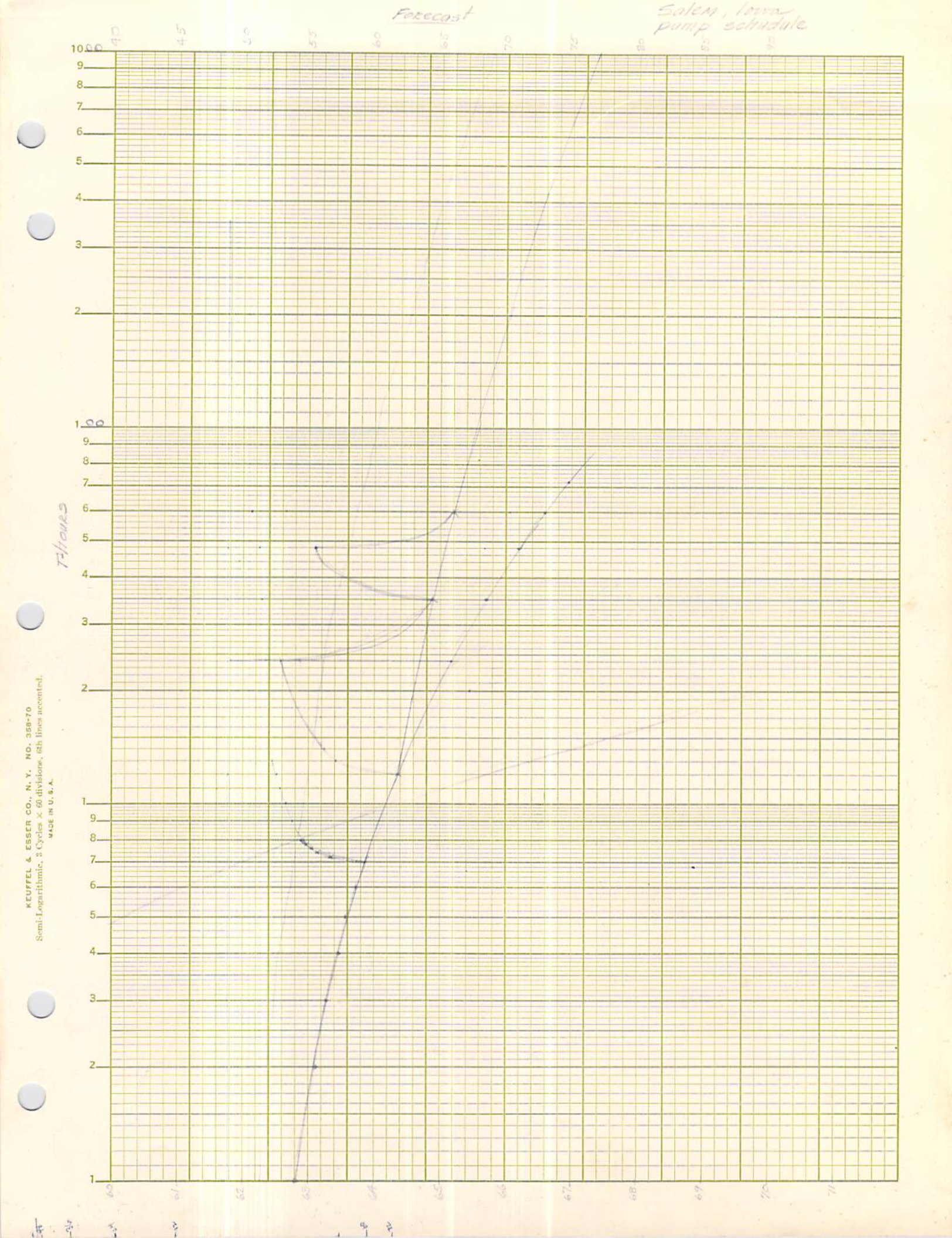


KEUFFEL & ESSER CO., N. Y. NO. 358-70
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MADE IN U. S. A.

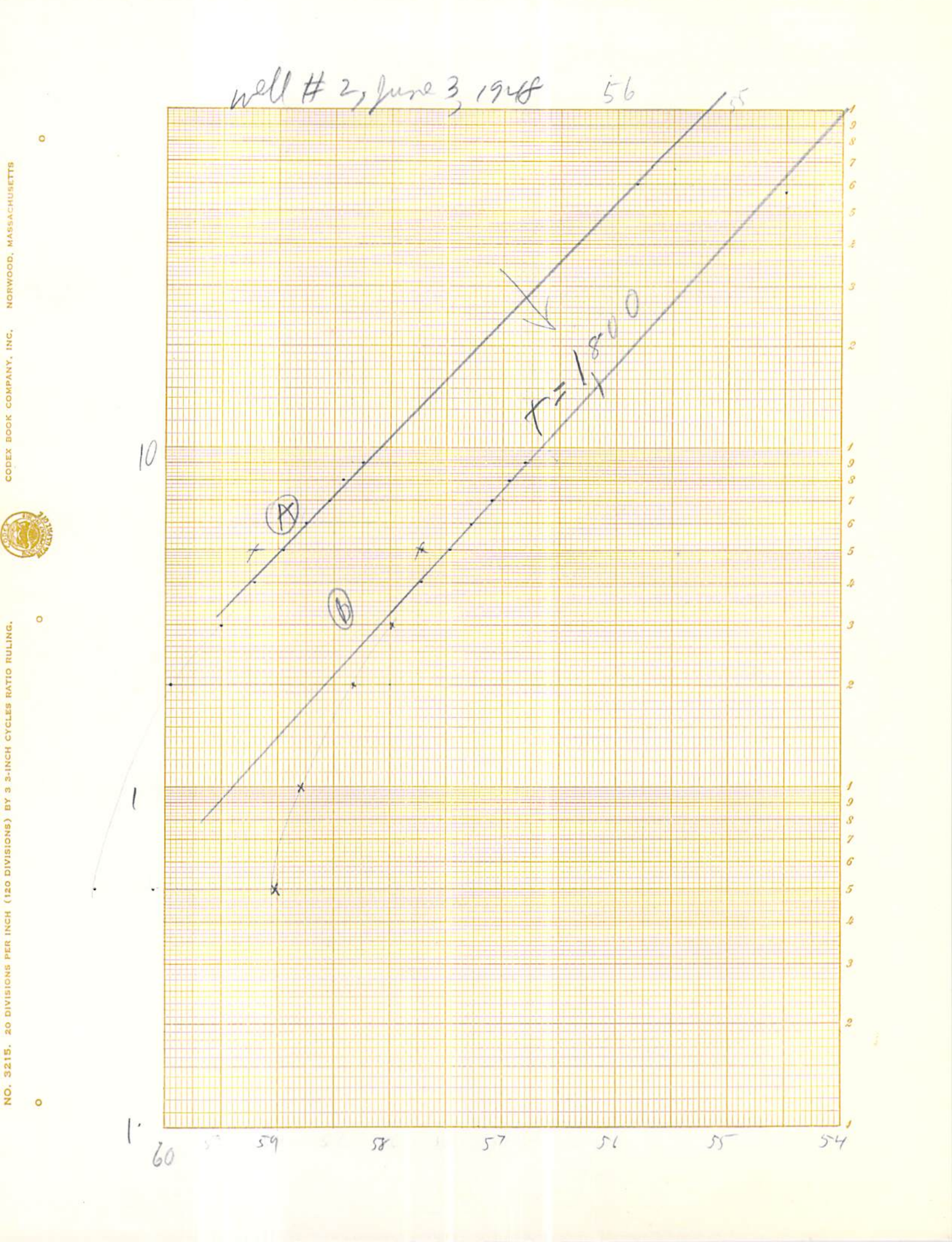
120
110
100
T-HOURS
1 YR.
10 YR
+ 1934R.
KEUFFEL & ESSER CO., N. Y. NO. 358-70
Semi-Logarithmic, 3 Cycles × 60 divisions, 6th lines accented.
MADE IN U. S. A.
Salem, Ohio
Pumping Schedule
Percent

Forecast

Salem, Iowa
pump schedule



KEUFFEL & ESSER CO., N. Y. NO. 358-70
Semi-Logarithmic, 3 Cycles × 60 divisions, 6th lines accented.
MADE IN U. S. A.



NO. 3215. 20 DIVISIONS PER INCH (120 DIVISIONS) BY 3 3-INCH CYCLES RATIO RULING. CODEX BOOK COMPANY, INC., NORWOOD, MASSACHUSETTS

PRINTED IN U. S. A.

PART NO. 503478

CHART No. 1941
WATER STAGE RECORDER TYPE FW

BENDIX AVIATION CORPORATION
FRIEZ INSTRUMENT DIVISION
BALTIMORE, MARYLAND, U. S. A.

WATER STAGE RECORD FOR.....

BEGINNING DATE.....TIME.....STAFF GAGE READING.....

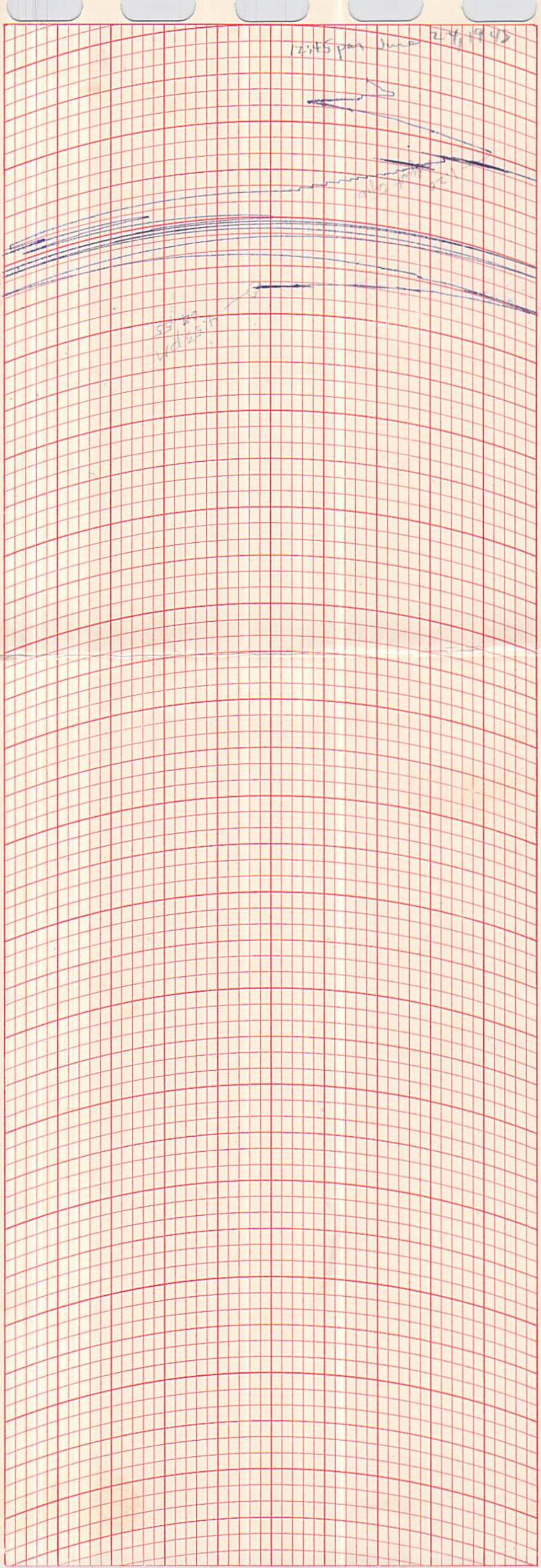
ENDING DATE.....TIME.....STAFF GAGE READING.....

STAGE HEIGHT RATIO: 5" OF CHART =.....WATER.....

CHECK THE TIME SCALE USED
- 1 DIVISION = 5 MINUTES (8 HOUR CHART) ☐
- 1 DIVISION = 1 HOUR (4 DAY CHART) ☐
- 1 DIVISION = 2 HOURS (8 DAY CHART) ☐

CHART CHANGED BY.....

REMARKS.....



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PART NO. 503478

CHART No. 1941
WATER STAGE RECORDER TYPE FW

M.P. top casing
3.75' above L.S.

BENDIX AVIATION CORPORATION
FRIEZ INSTRUMENT DIVISION
BALTIMORE, MARYLAND, U. S. A.

June - July, 1948

WATER STAGE RECORD FOR Salem Town Well No. 2

BEGINNING DATE ..... TIME ..... STAFF GAGE READING .....

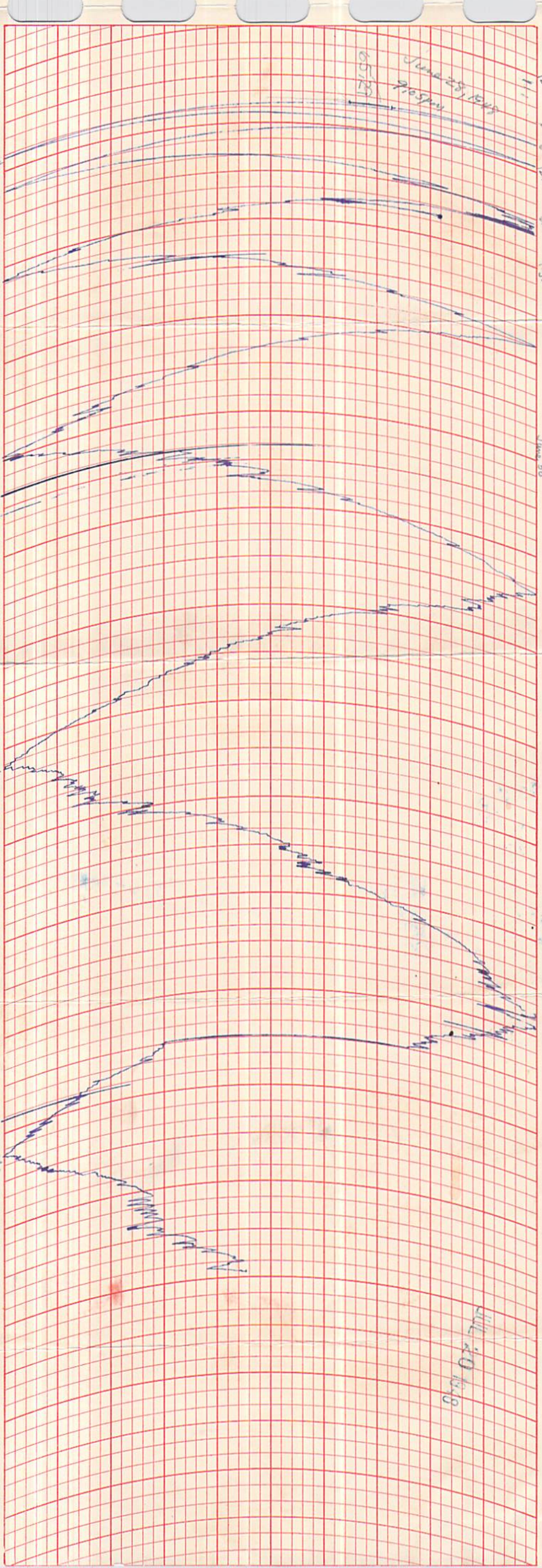
ENDING DATE ..... TIME ..... STAFF GAGE READING .....

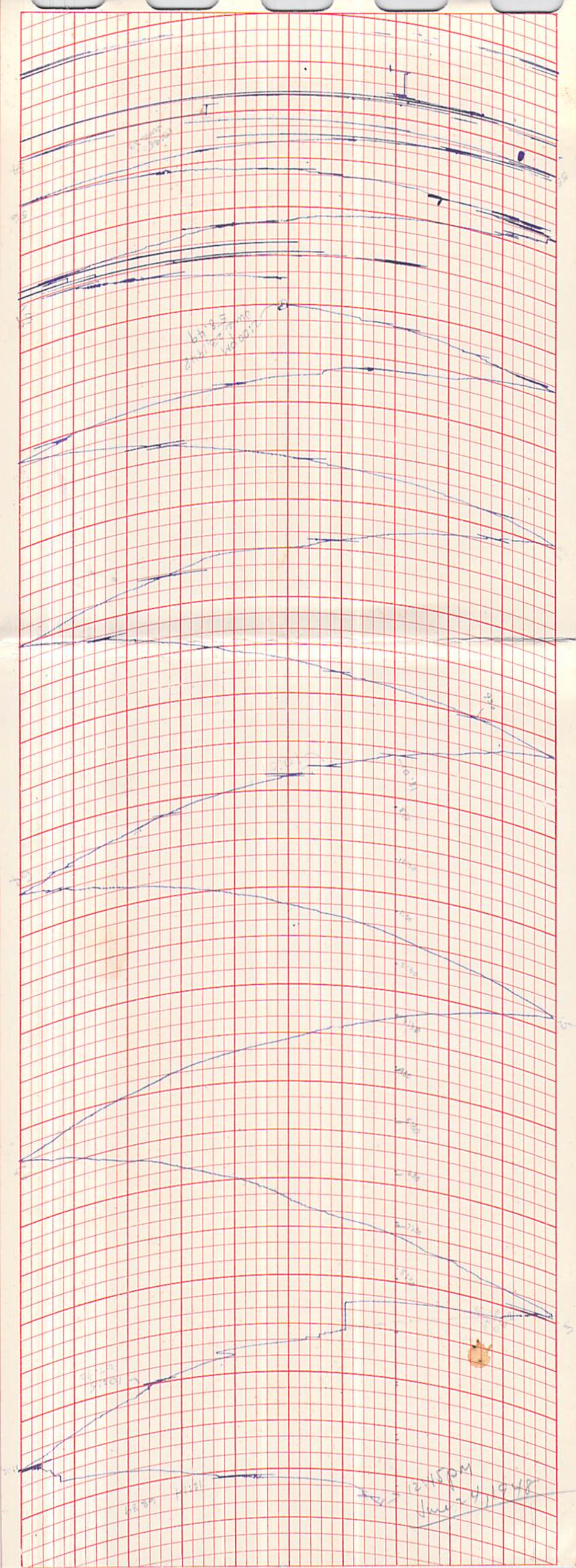
STAGE HEIGHT RATIO: 5" OF CHART = ... WATER .....

CHECK THE TIME SCALE USED
- 1 DIVISION = 5 MINUTES (8 HOUR CHART) ☐
- 1 DIVISION = 1 HOUR (4 DAY CHART) ☐
- 1 DIVISION = 2 HOURS (8 DAY CHART) ☐

CHART CHANGED BY .....

REMARKS .....





PRINTED IN U. S. A.

PART NO. 503478

CHART No. 1941
WATER STAGE RECORDER TYPE FW

BENDIX AVIATION CORPORATION
FRIEZ INSTRUMENT DIVISION
BALTIMORE, MARYLAND, U. S. A.

WATER STAGE RECORD FOR.....

BEGINNING DATE..... TIME..... STAFF GAGE READING.....

ENDING DATE..... TIME..... STAFF GAGE READING.....

STAGE HEIGHT RATIO: 5" OF CHART =..... WATER.....

CHECK THE TIME SCALE USED
- 1 DIVISION = 5 MINUTES (8 HOUR CHART) ☐
- 1 DIVISION = 1 HOUR (4 DAY CHART) ☐
- 1 DIVISION = 2 HOURS (8 DAY CHART) ☐

CHART CHANGED BY.....

REMARKS.....

June 24, 1948
5:01 PM

NOON THURS.

5:01 P

55.7 ft
at 9:58
June 29, 1948