

644  
9-19-85

AL	S/L	P/L	O/D	PSI	GPM
90	27	45	18	55	104
		53	26	47	133
		59	32	40	167
		65	38	35	192
		70	43	30	210

5 1/2 P/ET

used direct reading gauge

27  
43  
70



12.12.80


Direct Reading

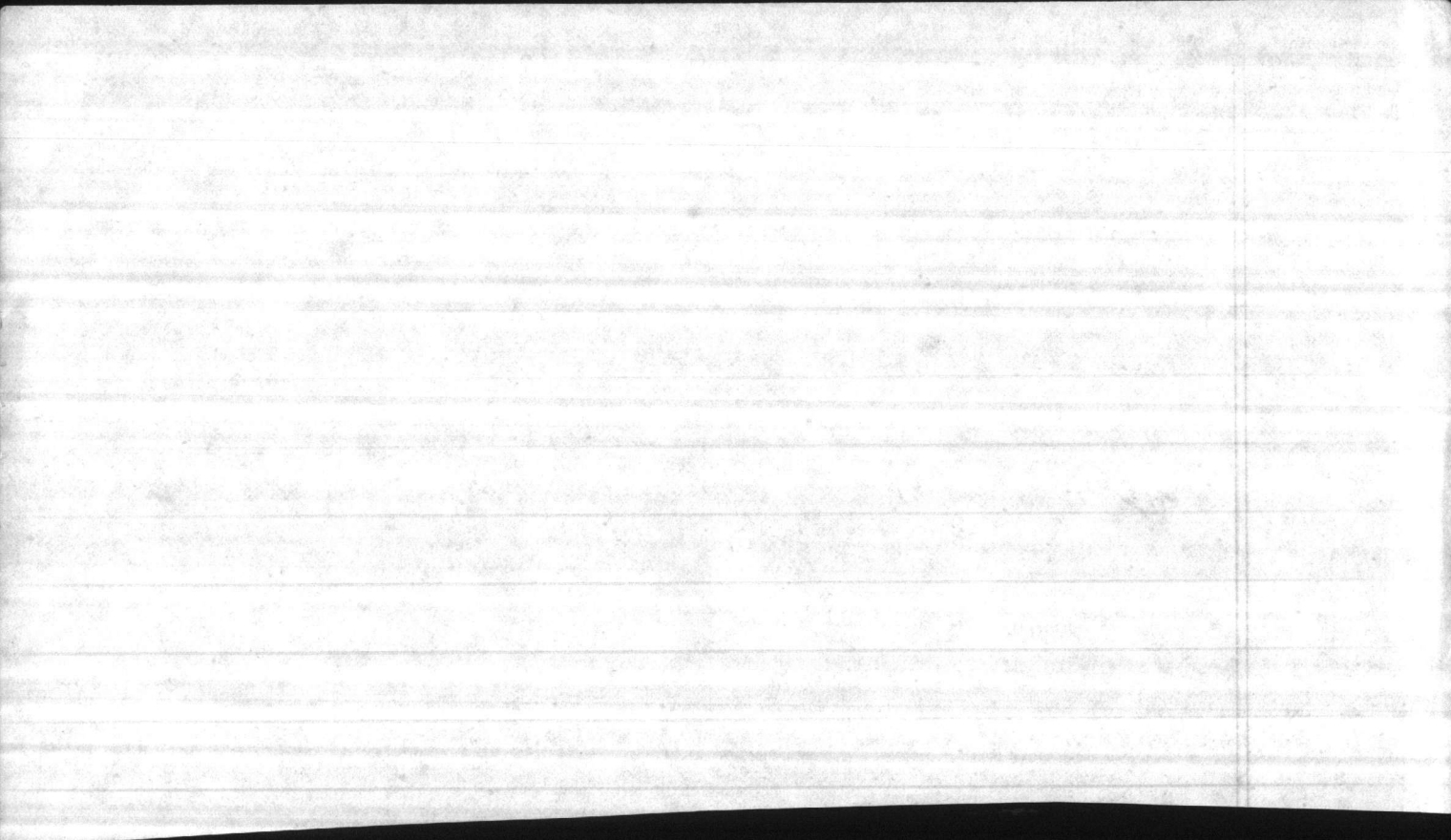
Airline  
90'

Well House 644

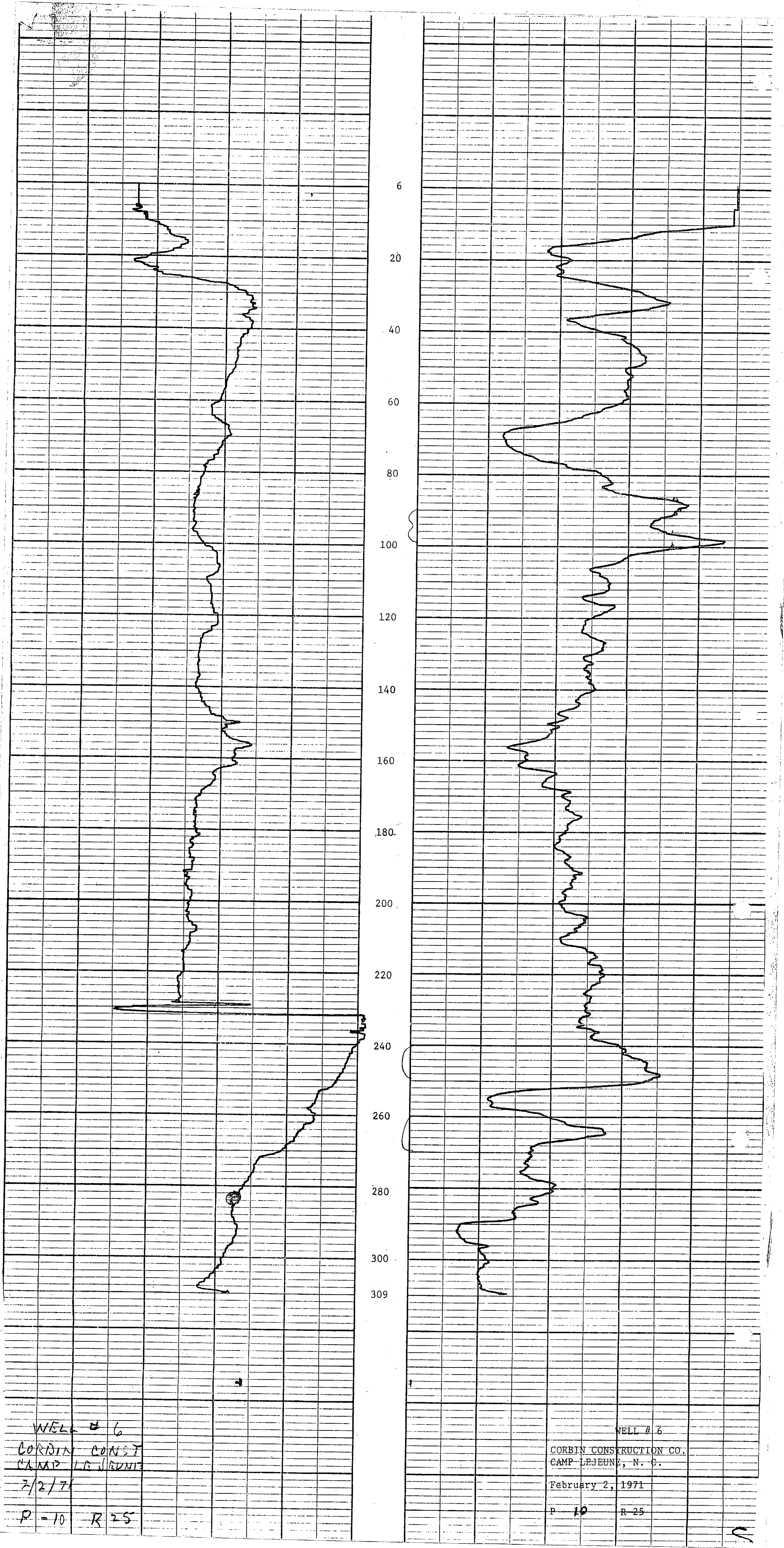
Pump 6.

static water level	pumping level	pressure LBS	gpm
<del>44</del>	76'	36	167
	79'	33 LBS	180
	80'	31 "	192
	83'	28 LBS	199

Left on 







WELL # 6  
 CORBIN CONST  
 CAMP LEJEUNE  
 2/2/71  
 P-10 R-25

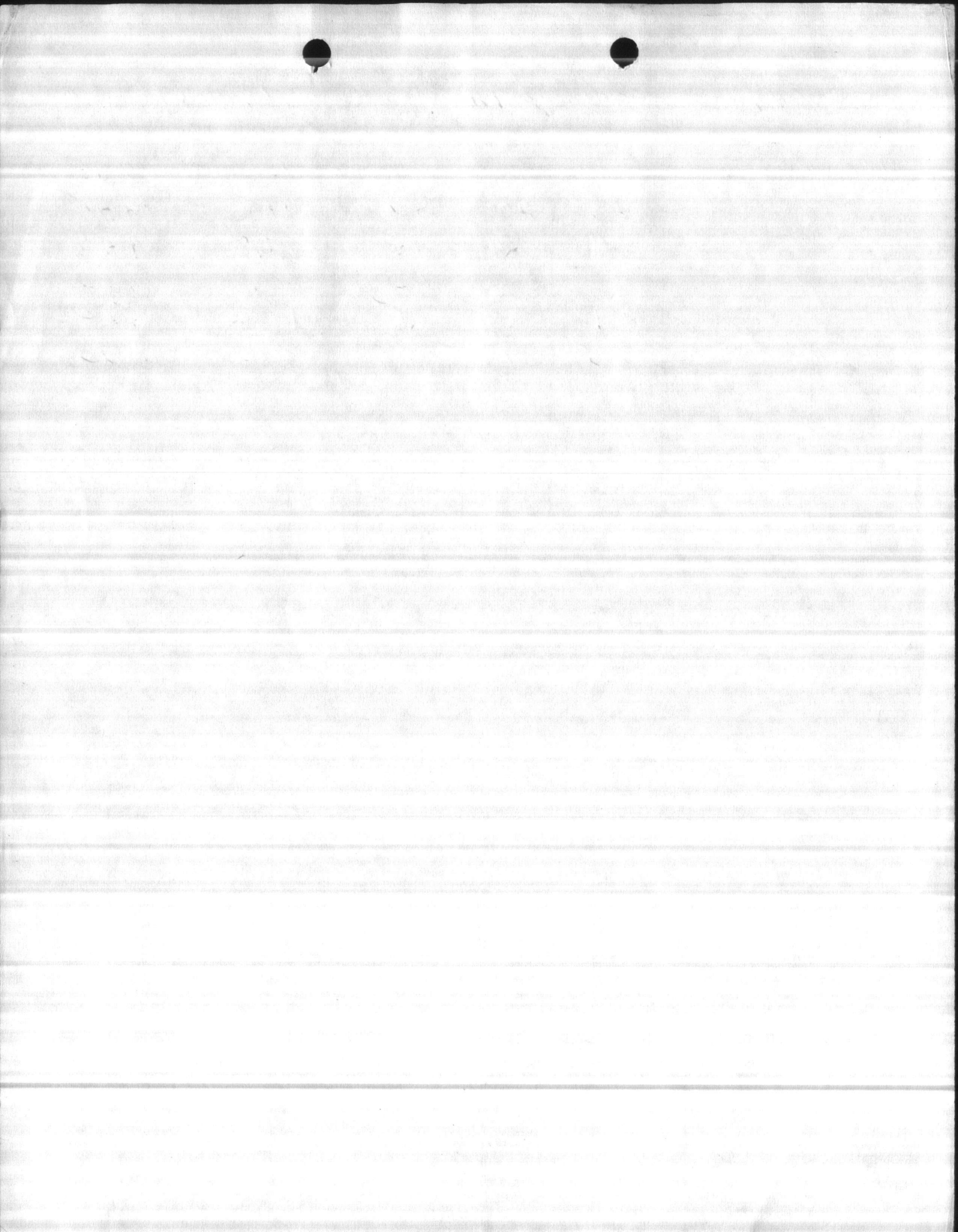
WELL # 5  
 CORBIN CONSTRUCTION CO.  
 CAMP LEJEUNE, N. C.  
 February 2, 1971  
 P-10 R-25

#6 FILE 15D #6

WELL NUMBER		BY			DATE	
AIR LINE	STATIC LEVEL	PUMPING LEVEL	DRAIN DOWN	DISCHARGE PRESSURE	GPM	START TIME
644		THOMAS / PHILLIPS			12-4-84	
90'	23	39	16	54	105	1425
		43	20	50	115	1445
		49	26	45	151	1455
		55	32	40	167	1500
		61	38	35	192	1510
		65	42	30	210	1520

REMARKS *test set at 30 PSI - 210 GPM*

MANUFACTURER	STAGE	S.N.	TOTAL HEAD	SIZE



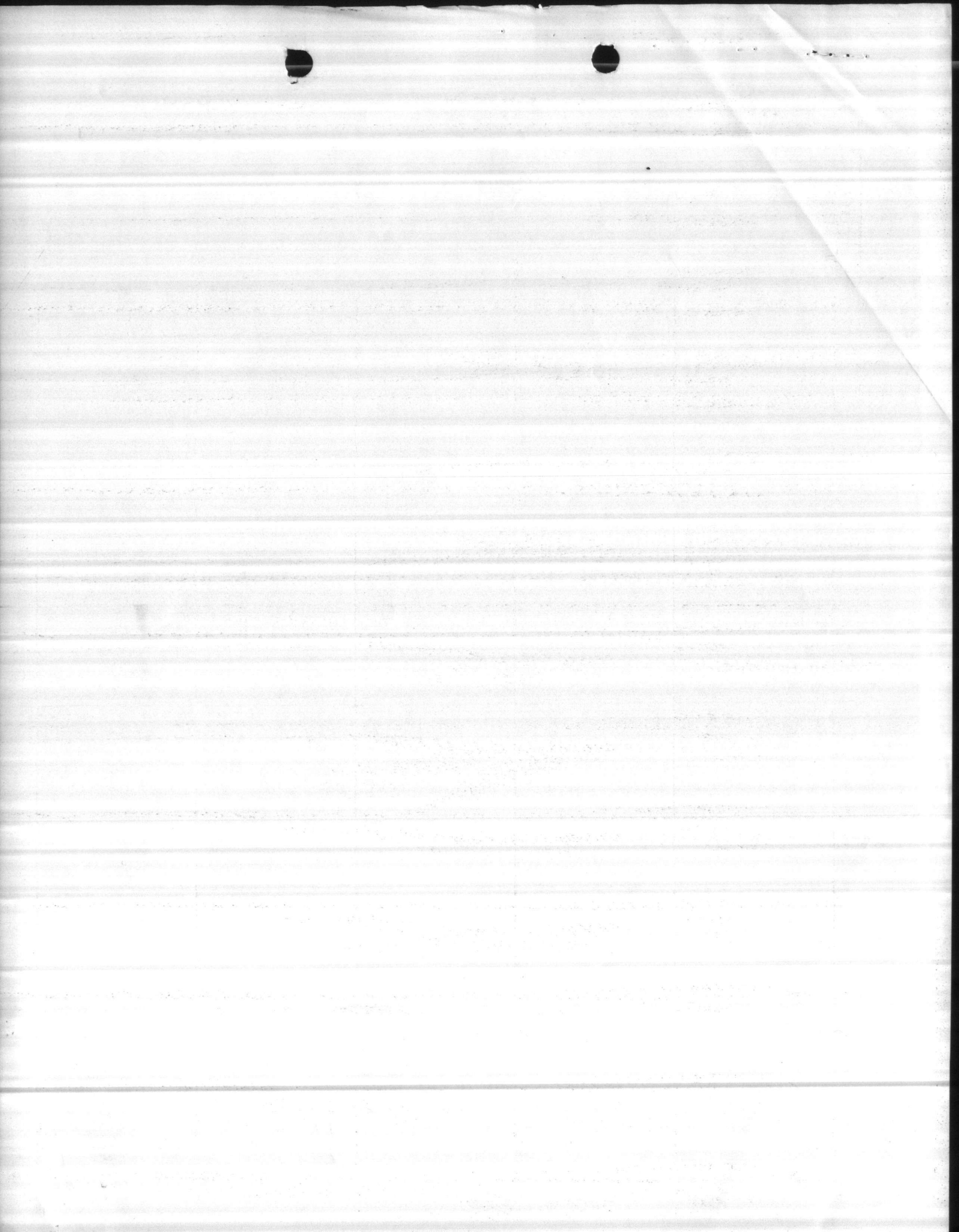


Well # 6

Discharge head per section 11A, par. 11A.3.1	----	55
Pumping level @ 260 gpm	----	78
Total head	----	133

Pump

8" PRHC 5 stage 15 hp



CHANGE EFFICIENCY AS FOLLOWS	NUMBER OF POINTS	FOR NUMBER OF STAGES
LOWER	5.5	1
LOWER	4.0	2
LOWER	2.5	3
LOWER	1.0	4

NOTE: ANY CHANGE IN EFFICIENCY CHANGES EITHER THE HEAD OR HORSE POWER IN PROPORTION.

**SINGER**

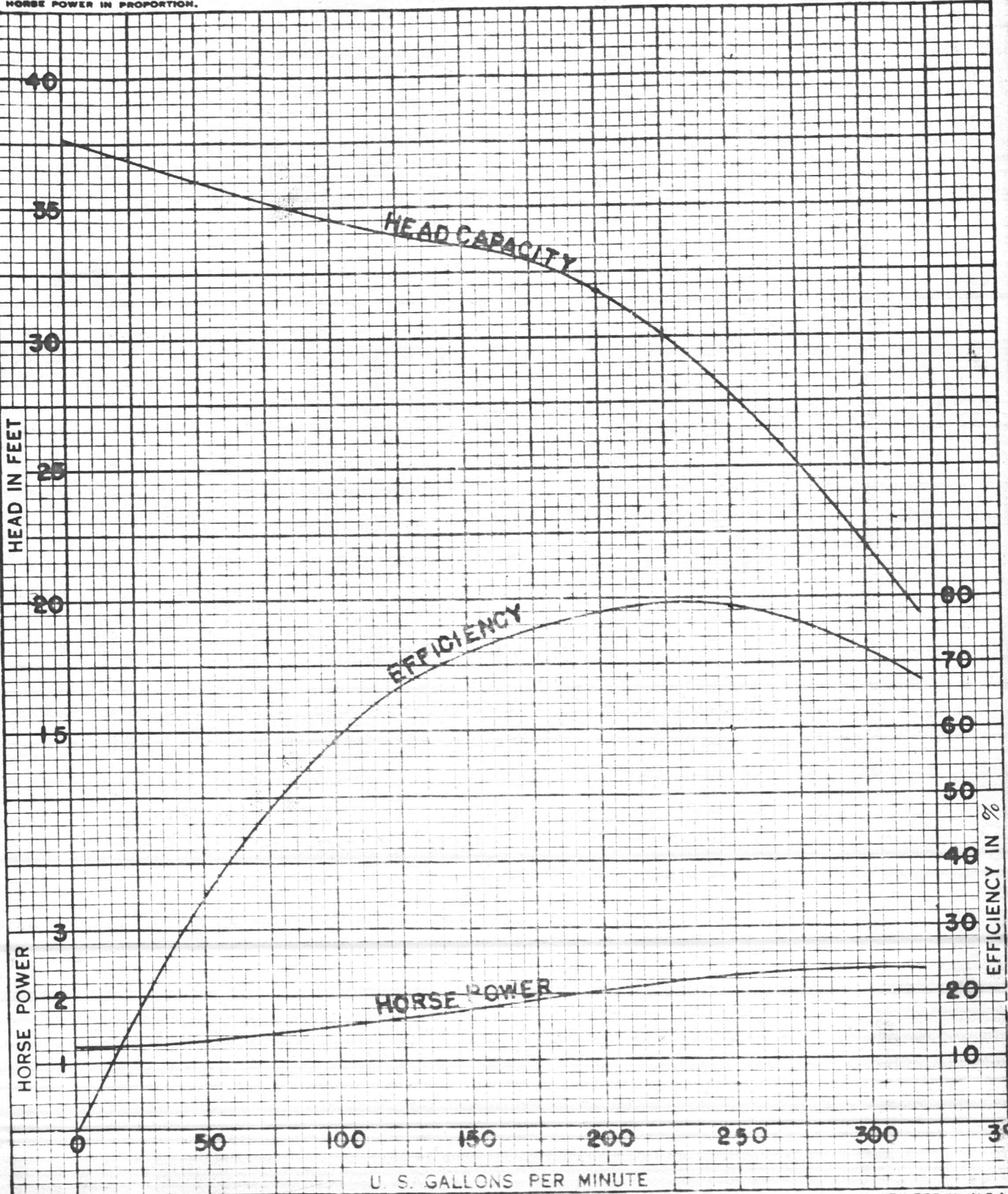
LAYNE & BOWLER DIVISION  
MEMPHIS, TENNESSEE U.S.A.



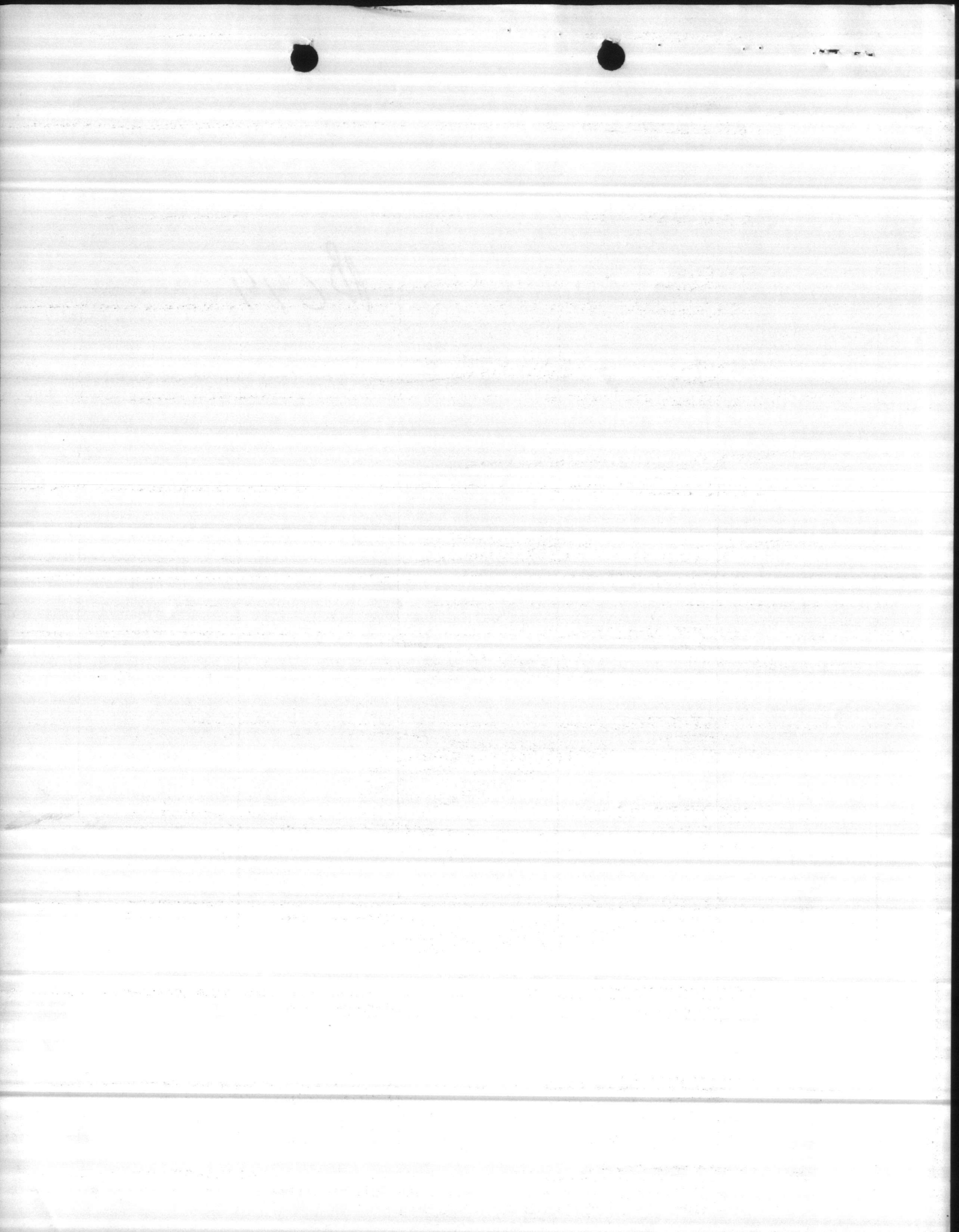
8" PRHC

1750 RPM

SINGLE STAGE LABORATORY  
HEAD & HORSE POWER  
THRUST "K" = 4









WATER ANALYSIS LABORATORY  
802 Hamlet Highway  
Bennettsville, South Carolina  
29512

(803) 479-4639

Date: February 12, 1971

644

Report To: Layne Atlantic Co.  
Norfolk, Va.

Date Analyzed: 2/12/71  
Sample Number: Camp Lejeune, Well #6  
240'-250'

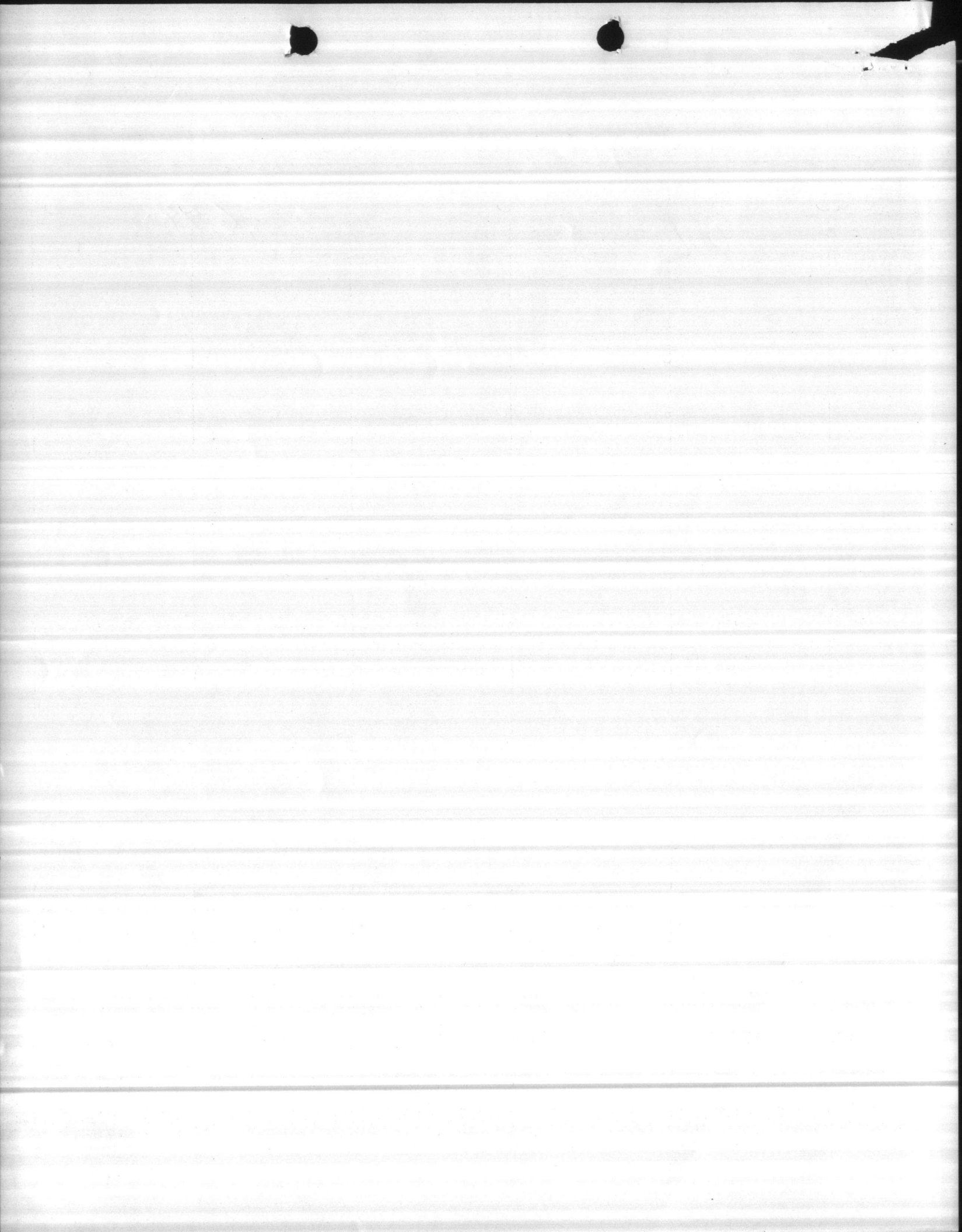
Analysis Results--Parts Per Million

<u>Determination</u>		<u>Determination</u>	
pH	<u>7.3</u>	Carbon Dioxide (CO <sub>2</sub> )	<u>35</u>
Iron (Fe)	<u>0.15</u>	Total Acidity (CaCO <sub>3</sub> )	<u>44</u>
Nitrate (NO <sub>3</sub> )	<u>Trace</u>	Calcium Hardness (CaCO <sub>3</sub> )	<u>111</u>
Fluoride (F)	<u>0.65</u>	Magnesium Hardness (CaCO <sub>3</sub> )	<u>27</u>
Manganese (Mn)	<u>Trace</u>	Carbonate Hardness (CaCO <sub>3</sub> )	<u>138</u>
Total Hardness (CaCO <sub>3</sub> )	<u>138</u>	Noncarbonate Hardness (CaCO <sub>3</sub> )	<u>0</u>
Chlorides (Cl)	<u>22</u>	Alkalinity (Phenolphthalein) (CaCO <sub>3</sub> )	<u>0</u>
Sulfate (SO <sub>4</sub> )	<u>14</u>	Carbonate Alkalinity (CaCO <sub>3</sub> )	<u>0</u>
Phosphate (PO <sub>4</sub> )	<u>0.9</u>	Bicarbonate Alkalinity (CaCO <sub>3</sub> )	<u>250</u>
Magnesium (Mg)	<u>6</u>	Total Alkalinity (CaCO <sub>3</sub> )	<u>250</u>
Calcium (Ca)	<u>45</u>	Total Dissolved Solids	<u>276</u>
Carbonate (CO <sub>3</sub> )	<u>0</u>	Specific Conductance (micromhos at 25°)	<u>460</u>
Bicarbonate (HCO <sub>3</sub> )	<u>305</u>	Appearance When Analyzed	<u>Clear</u>
Hydroxide (OH)	<u>0</u>	Odor When Analyzed	<u>Not Objectionable</u>

Signed: W. P. Johnson  
W. P. Johnson, Laboratory Director

Remarks: \_\_\_\_\_

Analytical Methods References: 'Standard Methods for the Examination of Water and Wastewater,' Twelfth Edition, 1965, APHA, AWWA and WPCF and 'Methods for Collection and Analysis of Water Samples,' Water Supply Paper 1454 (1960), U. S. Geological Survey, Washington, D. C.





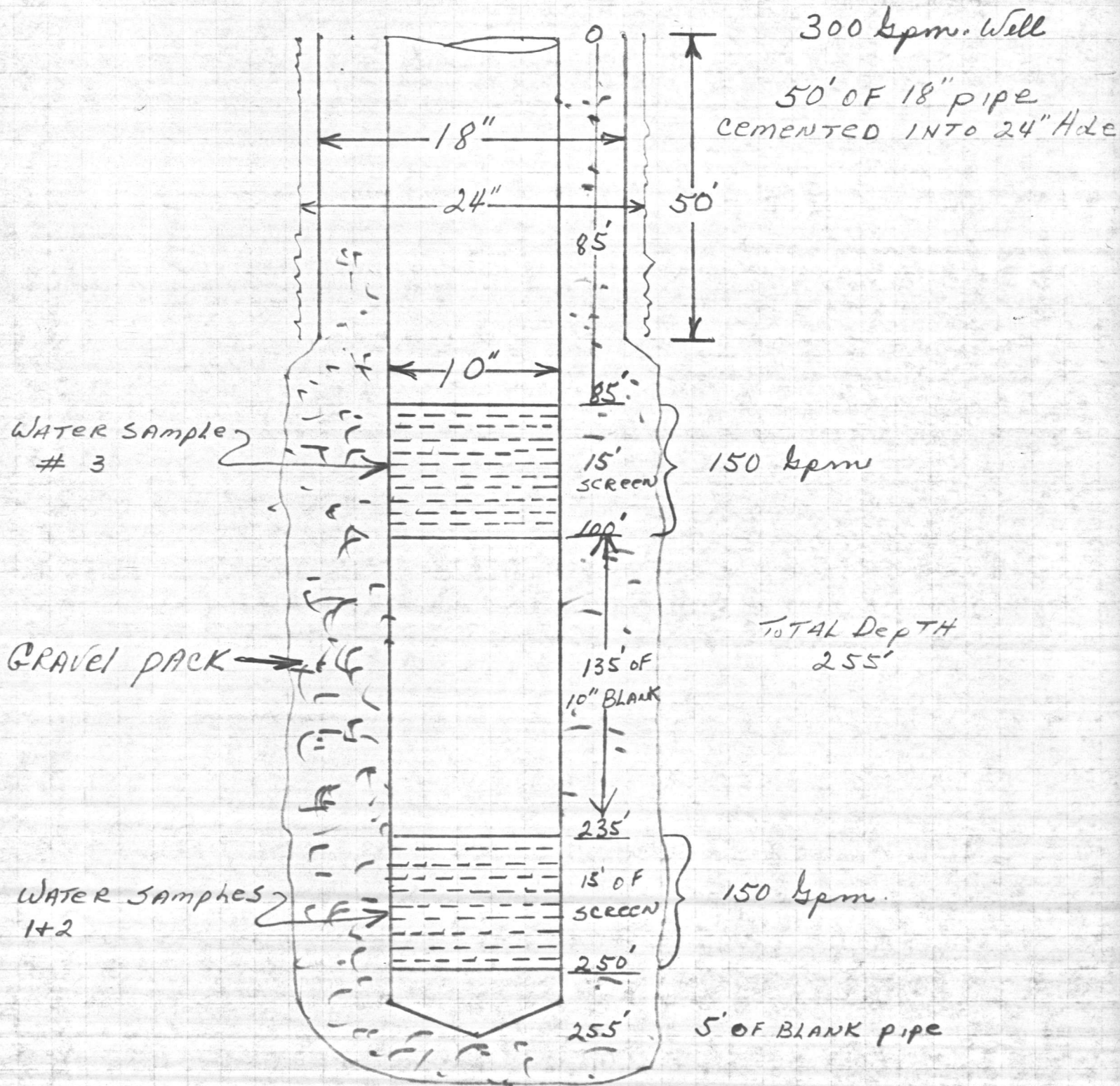
Corbin Construction Co.

Feb 22, 1971

Camp Lejeune N.C.

Job # 40936 LAYNE ATLANTIC Co.

Proposed SKETCH OF Well #6





11-11-11

11

11



**WATER ANALYSIS LABORATORY**  
 802 Hamlet Highway  
 Bennettsville, South Carolina  
 29512

(803) 479-4639

Date: February 12, 1971

Report To: Layne Atlantic Co.  
Norfolk, Va.

Date Analyzed: 2/12/71  
 Sample Number: Camp Lejeune, Well #6  
260'-270'

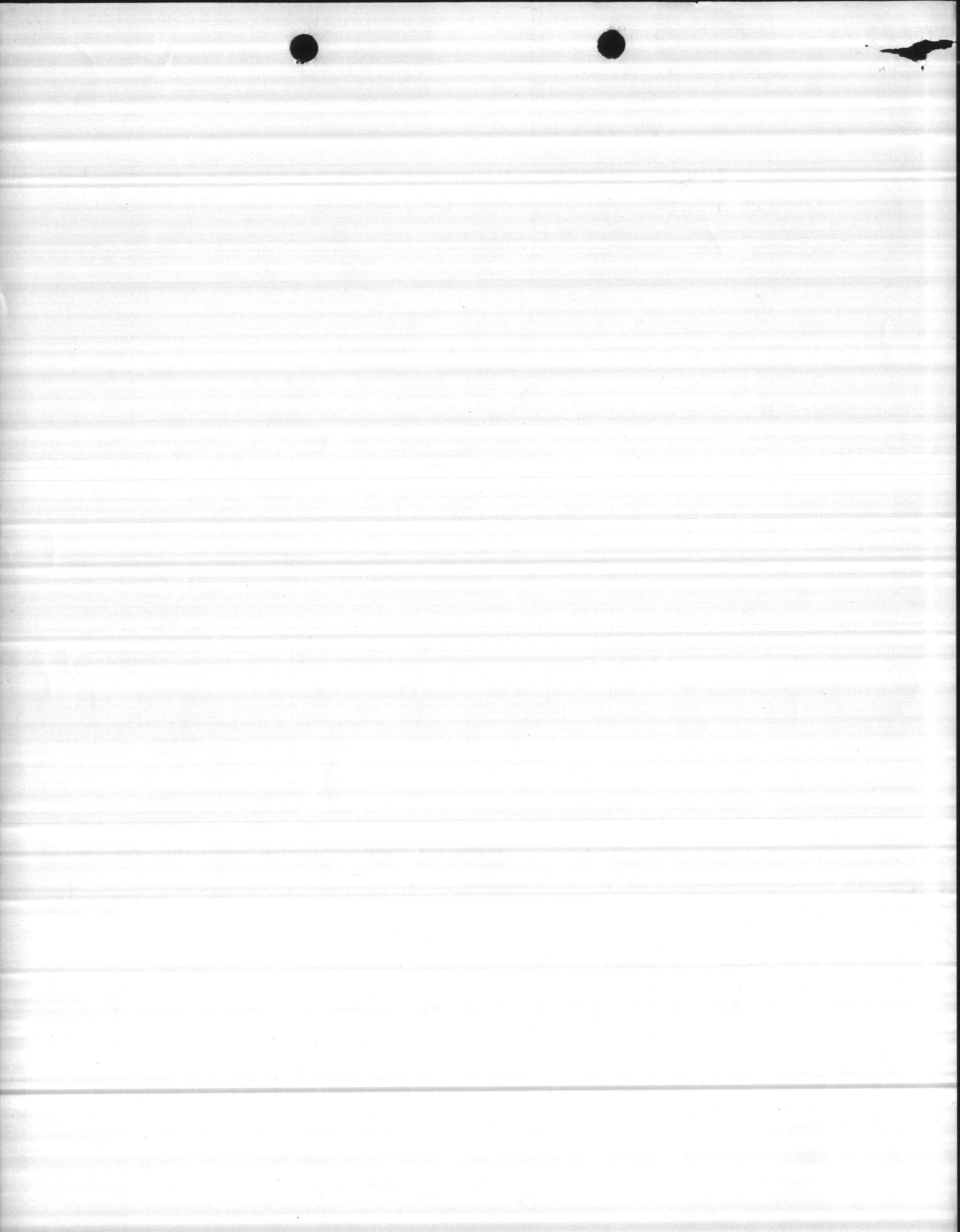
Analysis Results--Parts Per Million

<u>Determination</u>		<u>Determination</u>	
pH	<u>7.3</u>	Carbon Dioxide (CO <sub>2</sub> )	<u>35</u>
Iron (Fe)	<u>0.1</u>	Total Acidity (CaCO <sub>3</sub> )	<u>48</u>
Nitrate (NO <sub>3</sub> )	<u>Trace</u>	Calcium Hardness (CaCO <sub>3</sub> )	<u>120</u>
Fluoride (F)	<u>0.6</u>	Magnesium Hardness (CaCO <sub>3</sub> )	<u>17</u>
Manganese (Mn)	<u>0</u>	Carbonate Hardness (CaCO <sub>3</sub> )	<u>137</u>
Total Hardness (CaCO <sub>3</sub> )	<u>137</u>	Noncarbonate Hardness (CaCO <sub>3</sub> )	<u>0</u>
Chlorides (Cl)	<u>21</u>	Alkalinity (Phenolphthalein) (CaCO <sub>3</sub> )	<u>0</u>
Sulfate (SO <sub>4</sub> )	<u>20</u>	Carbonate Alkalinity (CaCO <sub>3</sub> )	<u>0</u>
Phosphate (PO <sub>4</sub> )	<u>1.1</u>	Bicarbonate Alkalinity (CaCO <sub>3</sub> )	<u>250</u>
Magnesium (Mg)	<u>3.8</u>	Total Alkalinity (CaCO <sub>3</sub> )	<u>250</u>
Calcium (Ca)	<u>48</u>	Total Dissolved Solids	<u>270</u>
Carbonate (CO <sub>3</sub> )	<u>0</u>	Specific Conductance (micromhos at 25°)	<u>450</u>
Bicarbonate (HCO <sub>3</sub> )	<u>305</u>	Appearance When Analyzed	<u>Clear</u>
Hydroxide (OH)	<u>0</u>	Odor When Analyzed	<u>Not Objectionalbe</u>

Signed: W. P. Johnson  
 W. P. Johnson, Laboratory Director

Remarks: \_\_\_\_\_

Analytical Methods References: 'Standard Methods for the Examination of Water and Wastewater,' Twelfth Edition, 1965, APHA, AWWA and WPCF and 'Methods for Collection and Analysis of Water Samples,' Water Supply Paper 1454 (1960), U. S. Geological Survey, Washington, D. C.



U.S. DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
OFFICE OF WATER DATA COORDINATION  
INVENTORY OF HYDROLOGIC DATA STATIONS  
QUALITY OF WATER

APPROVED.  
Budget Bureau No. 42-R1485  
Approval Expires June 30, 1976

1. AGENCY CODE <b>MC</b>		2. TYPE <b>Q</b>	3. LATITUDE <b>34</b> ° <b>43</b> ' <b>04</b> " N		4. LONGITUDE <b>77</b> ° <b>21</b> ' <b>00</b> " W	
6. AGENCY STATION NO. <b>HP-644</b>		7. STATION NAME <b>HP-670-644</b>				
8. DRAINAGE BASIN CODE No. Letter <b>06 N</b>		9. STATE CODE <b>32</b>	10. COUNTY CODE <b>133</b>	11. COUNTY NAME <b>Onslow</b>		
12. PERIOD OF RECORD Began Discontinued <b>1972</b>		Y <input type="checkbox"/> Continuous Interruption Exceeds 1 Year			13.	14.
15. SITE						
<input type="checkbox"/> 101 Stream		<input type="checkbox"/> 104 Reservoir		<input checked="" type="checkbox"/> 107 Well		
<input type="checkbox"/> 102 Canal		<input type="checkbox"/> 105 Estuarine zone		<input type="checkbox"/> 108 Drain		
<input type="checkbox"/> 103 Lake		<input type="checkbox"/> 106 Spring		<input type="checkbox"/> 109 Other		
16. TYPES OF DATA AVAILABLE AND FREQUENCY OF MEASUREMENT (Enter appropriate number (1-8) beside each parameter to indicate frequency of measurement. For parameters telemetered, enter "T".)						
1 Continuous 2 Seasonal		3 Daily 4 Weekly		5 Monthly 6 Quarterly		7 Annual 8 Other Periodic
<i>Physical</i>		<i>Chemical</i>		<i>Biologic</i>		
311—Temperature		331—Dissolved solids		361—Coliforms		
312—Specific conductance		332— <b>8</b> Chloride		362—Other micro-organisms (Benthic organism, phytoplankton, etc.)		
313—Turbidity		333—Nutrients (nitrogen)		363—Other		
314—Color		334—Nutrients (phosphorus)				
315—Odor		335—Common ions				
316—pH (field)		336— <b>8</b> Hardness		<i>Sediment</i>		
317— <b>8</b> pH (lab)		337—Radiochemical		371—Concentration (suspended)		
318—Eh		338—Dissolved oxygen		372—Particle size (suspended)		
319—Suspended solids		339—Other gases		373—Particle size (bed load material)		
320—Other		340—Minor elements		374—Other		
		341—Pesticides (insecticides, herbicides, etc.)				
		342—Detergents - MBS				
		343—Biochemical oxygen demand				
		344—Carbon (total, dissolved, etc.)				
17. SUPPLEMENTARY DATA AVAILABLE FOR STATION						
<input type="checkbox"/> 421 Surface water station		<input type="checkbox"/> 423 Water stage or level		<input type="checkbox"/> 425 Time of travel		
<input type="checkbox"/> 422 Ground water station		<input checked="" type="checkbox"/> 424 Water discharge		<input type="checkbox"/> 426 Drainage area		
18. STORAGE OF DATA						
<input type="checkbox"/> 501 Published		<input type="checkbox"/> 503 Data on punchcard		<input type="checkbox"/> 505 Other		
<input checked="" type="checkbox"/> 502 Not published		<input type="checkbox"/> 504 Data on magnetic tape, disc, data cell, etc.				
19. INQUIRIES ABOUT DATA SHOULD BE SENT TO:						
Office <b>Base Maintenance Department, Utilities Division</b>						
Street No. <b>Marine Corps Base</b>						
City, State, Zip <b>Camp Lejeune, North Carolina 28542</b>					City Code <b>0735</b>	
20. DATA ARE AVAILABLE TO PUBLIC ON REQUEST <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
21. OFFICE COMPLETING FORM <b>BASE MAINTENANCE DEPARTMENT</b>						
22. COMPILER'S NAME <b>BOB WILSON</b>					23. DATE 12 <sup>Month</sup> 1976 <sup>Year</sup>	





claro



Feb. 2, 1971

Corbin Construction Co

Camp Lejeune N.C. Well #6

Formation Log -

- 0'-10' Clay light Gray #B644
- 10'-15' Clay med.
- 15'-24' Clay dark gray soft
- 24'-75' Coarse sand + Clay
- 75'-125' Limestone + sand
- 125'-185' Limestone sand soft
- 185'-238' sand
- 238'-260' Hard limestone + sand
- 260'-310' sand + limestone

1934



## CORBIN CONSTRUCTION COMPANY

Camp LeJeune, N. C.  
Pumping Test Well No. 6  
July 29, 1971

Static Level 20' 7"

TIME	GPM	PUMPING LEVEL	TIME	GPM	PUMPING LEVEL
3:00	153	51' 3"	1:30	261	78' 8"
3:15	153	51' 2"	2:30	261	78' 9"
3:30	153	51' 2"	3:30	261	78' 9"
3:45	153	51' 2"	4:30	261	78' 9"
4:00	153	51' 10"	5:30	261	78' 10"
4:30	153	51' 10"	6:30	261	78' 10"
5:00	153	51' 10"	7:30	261	78' 10"
5:30	153	51' 10"	8:30	261	78' 0"
6:00	153	51' 10"	9:30	261	78' 0"
6:15	200	64' 3"	10:30	261	77' 10"
6:30	200	64' 3"	11:30	261	77' 9"
6:45	200	64' 4"	12:30	261	78' 1"
7:15	200	64' 4"	1:30	261	78' 6"
7:45	200	64' 4"	2:30	261	78' 2"
8:15	200	65' 9"	3:30	261	78' 5"
8:45	200	65' 10"	4:30	261	78' 5"
9:00	261	75' 4"	5:30	261	78' 5"
9:15	261	76' 0"	6:30	261	77' 10"
9:30	261	76' 4"	7:30	261	77' 10"
10:30	261	86' 8"	8:30	261	77' 10"
11:00	261	77' 0"	9:30	261	77' 10"
11:30	261	77' 6"	10:30	261	77' 10"
12:30	261	78' 7"	11:30	261	77' 10"

Within 10ft of top screen

line 85 feet.



