

FILE FOLDER

DESCRIPTION ON TAB:

Wellhouse m-161

Outside/inside of actual folder did not contain hand written information

Outside/inside of actual folder did contain hand written information

***Scanned as next image**

60/840
/02

CONTRACTOR'S SUBMITTAL TRANSMITTAL

AND LANTDIV FORM 35/3 (Rev. 6/78)

CONTRACT NO. <i>82-C-4331</i>	TRANSMITTAL NO. <i>24</i>	DATE <i>3/5/84</i>
PROJECT TITLE AND LOCATION <i>Replace 3 water wells MCB, Camp Lejeune, NC.</i>		

FROM CONTRACTOR
EAST COAST CONSTRUCTION Co. INC.

TO
*ENWRIGHT ASSOCIATES, INC
PO Box 5287 GREENVILLE SC 29606*

CONTRACTOR USE ONLY

*List only one specification division per form.

List only one of the following categories on each transmittal form, and indicate which is being submitted

- Contractor Approved OICC Approval Deviation/Substitution For OICC Approval

REVIEWER USE ONLY

****ACTION CODES**

- A-Approved
- D-Disapproved
- AN-Approved as noted
- RA-Receipt acknowledged.
- C-Comments
- R-Resubmit

ITEM NO.	PROJ. SPEC. SECT. & PARA. and/or PROJ. DWG. NO. *	ITEM IDENTIFICATION (Type, size, model no., Mfg. name, dwg. or brochure number)	NO. OF COPIES	ACTION CODES **	REVIEWER'S INITIALS CODE AND DATE
<i>1</i>	<i>15201-7.3</i>	<i>24 Hour Pumping Test Well N° M-168</i>	<i>3</i>	<i>A</i>	<i>T. K.L. 3/12/84</i>

CONTRACTOR'S COMMENTS

*Well N° M-168
Montford Point, Camp Lejeune NC
24 Hr Pumping test*

COPY OF TRANSMITTAL AND SUBMITTALS TO ROICC _____

CONTRACTOR REPRESENTATIVE (Signature) *Ron Ellen*

DATE RECEIVED BY REVIEWER _____ FROM (Reviewer) _____ TO _____

- Submittals are returned with action indicated. Approval of an item does not include approval of any deviation from the contract requirements unless the contractor calls attention to and supports the deviation.
- Submittals are forwarded to LANTDIV with A-E recommendations indicated in REVIEWER USE ONLY Section and in comments below on ONE COPY of the transmittal form.

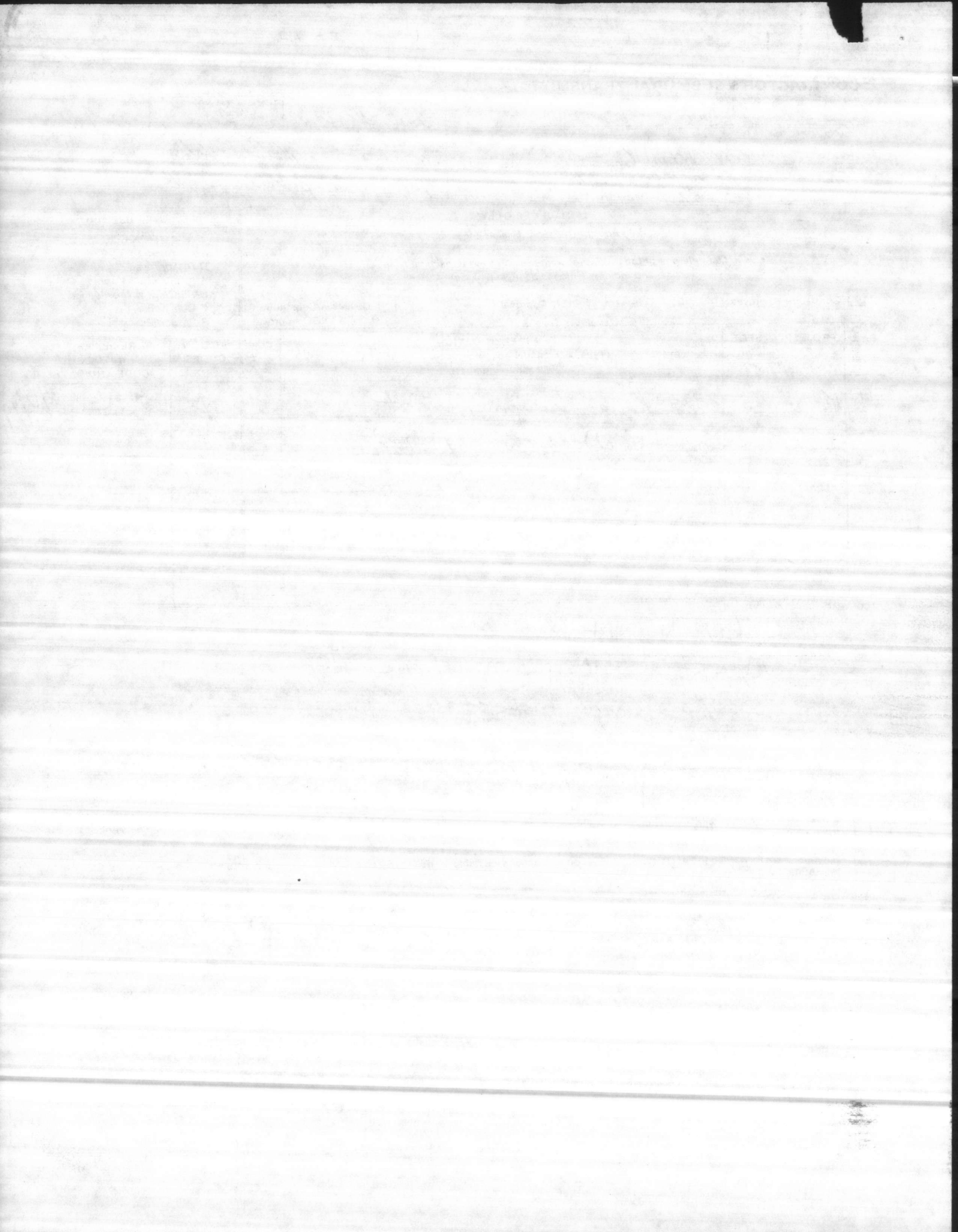
REVIEWER'S COMMENTS

RECEIVED

MAR 12 1984

ENWRIGHT ASSOCIATES

COPIES TO: ROICC (2) LANTDIV (1) A-E (1)	DATE	SIGNATURE
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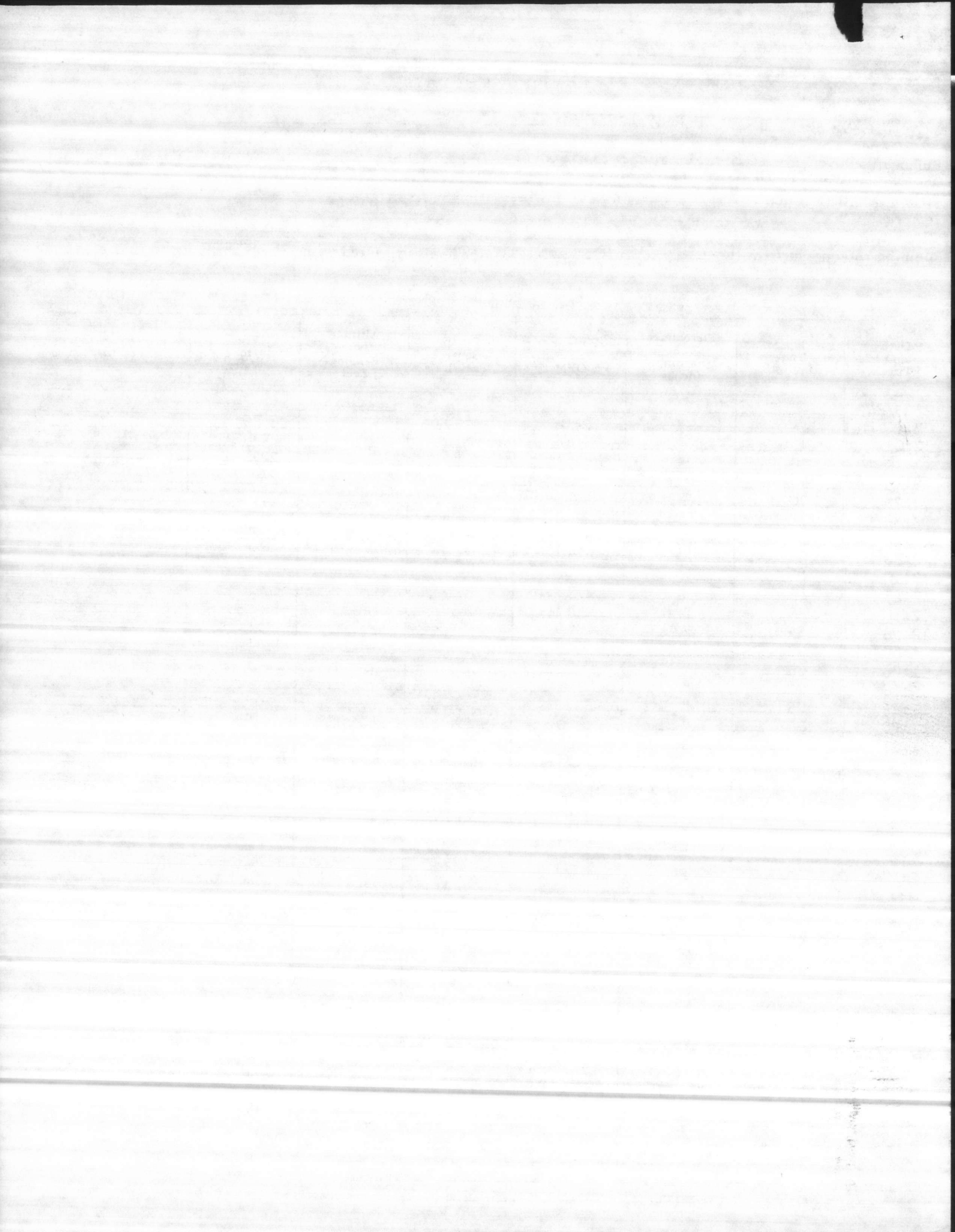
PUMPING TEST DATA

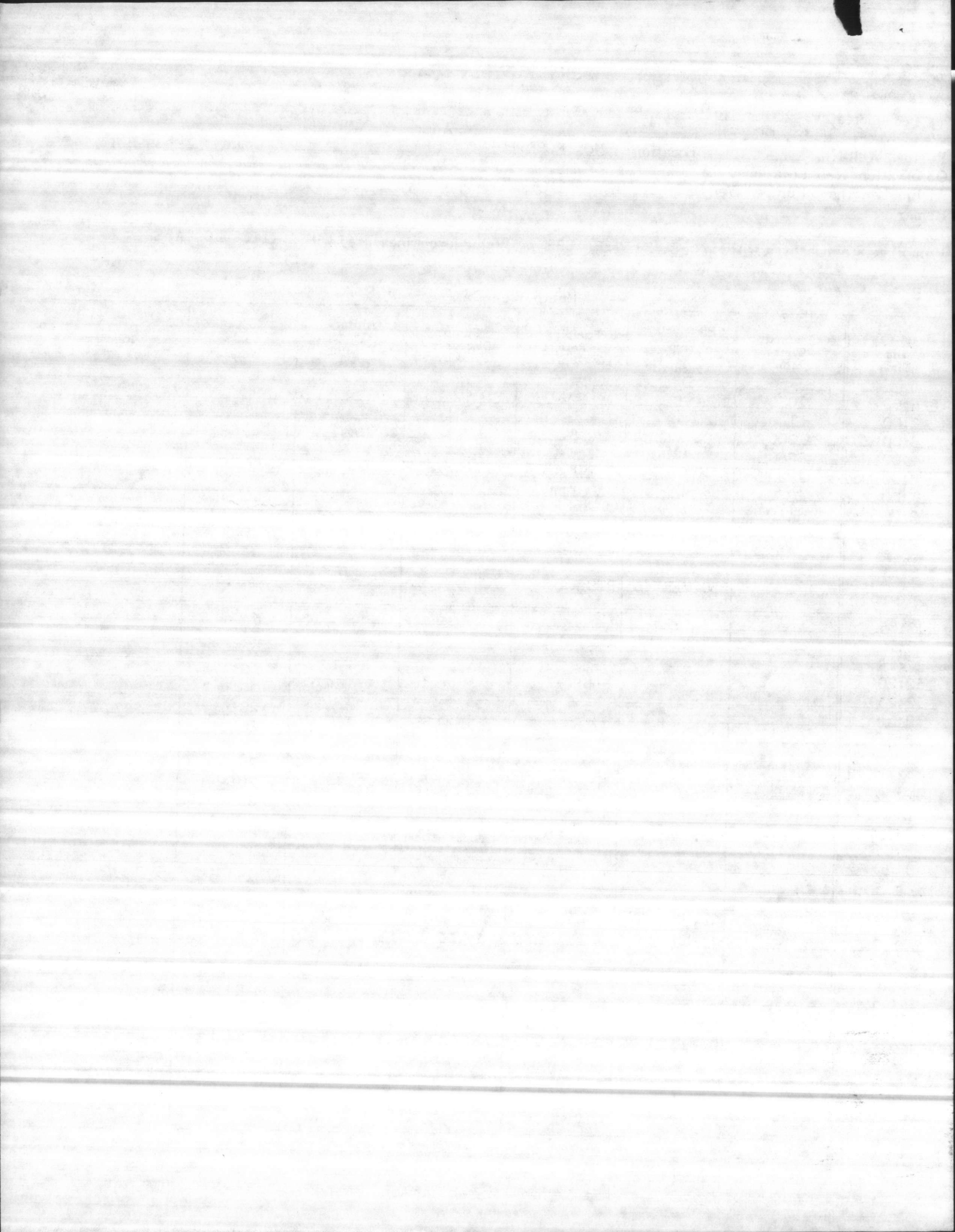
Test conducted by: ROGER THOMAS, LARRY BOONE
 Well Owner: U. S. GOVERNMENT Address: CAMP JOHNSON
 Pumped Well No.: M-168 Location: MONTEFORD POINT County: ONSLAW
 Observation Well Locations: _____
 Airline Lengths: Pumped Well _____ Observation Wells _____
 Remarks: _____

Pumping rate measured with: PIEZOMETER TUBE Water levels measured with: ELECTRIC TAPE

Pump Well Data

Date and Time	Elapsed Time Min.	Piezometer Tube Reading Inches	Pumping Rate GPM	Pump Discharge Pressure	Altitude Gauge Reading Feet	Feet to Water	Remarks
2/28/84							
12:00 PM		9 1/2	200			19'	
12:05	5 min.	9 1/2	200			22' 2"	
12:10	10	"	"			22' 3"	
12:15	15	"	"			24' 6"	
12:20	20	"	"			"	
12:25	25	"	"			"	
12:30	30	"	"			"	
12:35	35	"	"			"	
12:40	40	"	"			"	
12:45	45	"	"			"	
12:50	50	"	"			"	
12:55	55	"	"			25'	
1:00	60	"	"			25'	
1:05	65	"	"			"	
1:10	70	"	"			"	
1:15	75	"	"			"	
1:20	80	"	"			"	
1:25	85	"	"			"	
1:30	90	"	"			"	
1:35	95	"	"			"	
1:40	100	"	"			"	
1:45	105	"	"			"	
1:50	110	"	"			"	
1:55	115	"	"			"	
2:00	120	"	"			"	
2:15	135 -15 min.	"	"			"	
2:30	150	"	"			"	
2:45	165	"	"			"	
3:00	180	"	"			"	
4:00	240 -60 min.	"	"			"	
5:00	300	"	"			"	
6:00	360	"	"			"	
7:00	420	"	"			"	
8:00	480	"	"			"	
9:00	540	"	"			"	
10:00	600	"	"			"	
11:00	660	"	"			"	
12:00	720	"	"			"	
1:00	780	"	"			"	
2:00	840	"	"			"	
3:00	900	"	"			"	
4:00	960	"	"			"	
5:00	1020	"	"			"	





M-168



DEPARTMENT OF THE NAVY

OFFICER IN CHARGE OF CONSTRUCTION
RESIDENT OFFICER IN CHARGE OF CONSTRUCTION
NAVAL FACILITIES ENGINEERING COMMAND CONTRACTS
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:
N62470-82-C-4551
JAX/0034W/ms
24 March 1986

From: Resident Officer in Charge of Construction, Jacksonville, NC Area
To: Base Maintenance Officer, MCB, Camp Lejeune, NC (Attn: Mr. M. Frazzell)

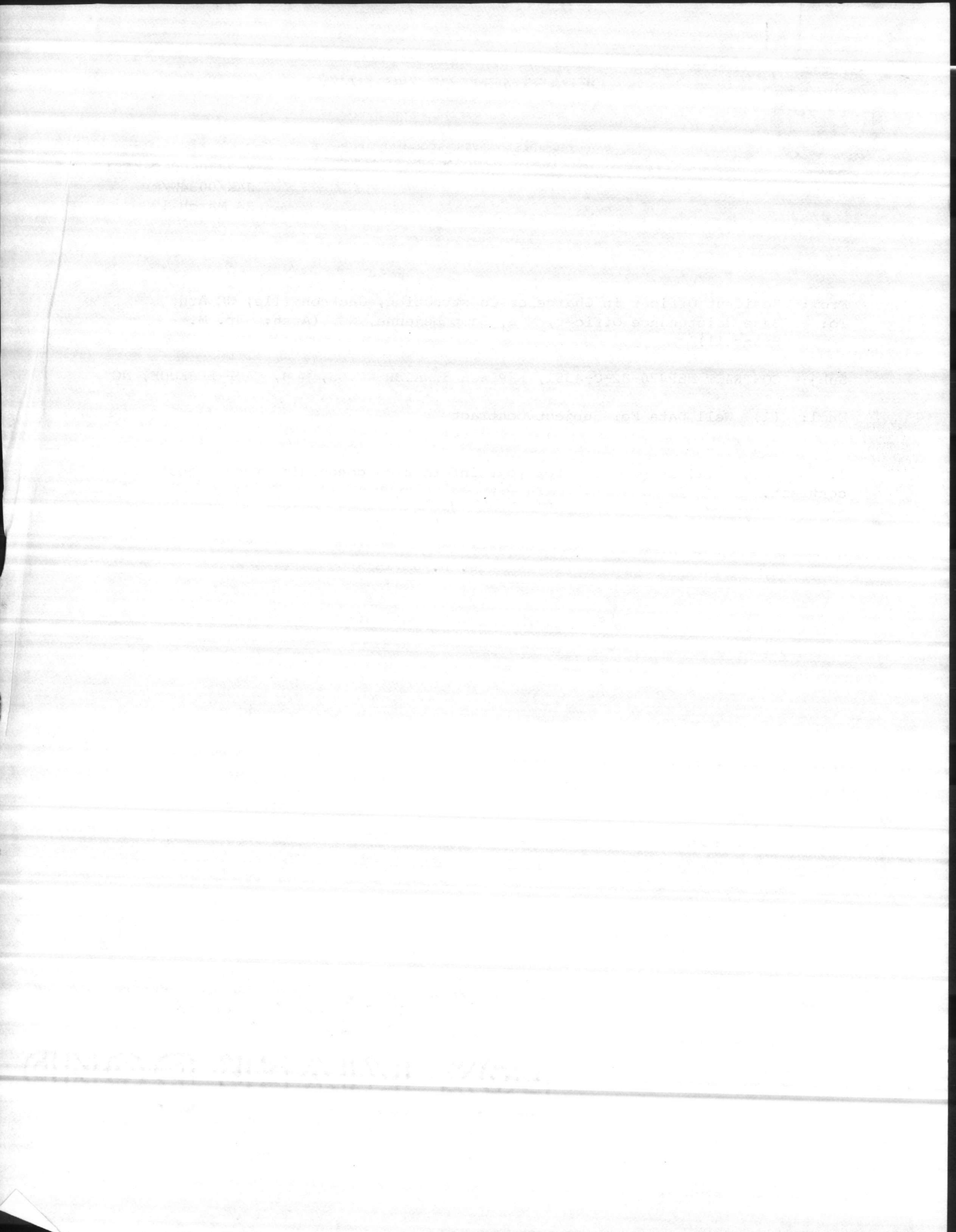
Subj: CONTRACT N62470-82-C-4551, REPLACE 3 WATER WELLS, MCB, CAMP LEJEUNE, NC

Encl: (1) Well Data For Subject Contract

1. Enclosure (1) is provided for your information concerning the subject contract.

J. L. DAVIS

SEARCHED
SERIALIZED
INDEXED
FILED



CONTRACTOR'S SUBMITTAL TRANSMITTAL
 5ND LANTDIV 4-4355/3 (Rev. 6/78)

File

CONTRACT NO. N62470-82-C-4551	TRANSMITTAL NO. 15	DATE 8-26-83
PROJECT TITLE AND LOCATION Replacing Three (3) Water Wells, MCB, Camp Lejeune, N. C.		
WELL #M-168		

FROM CONTRACTOR
East Coast Construction Co., Inc.
 TO
ROICC, Camp Lejeune, N. C.

REVIEWER USE ONLY
****ACTION CODES**
 A-Approved
 D-Disapproved
 AN-Approved as noted
 RA-Receipt acknowledged.
 C-Comments
 R-Resubmit

CONTRACTOR USE ONLY
 *List only one specification division per form.
 List only one of the following categories on each transmittal form,
 and indicate which is being submitted

- Contractor Approved OICC Approval Deviation/Substitution For OICC Approval

ITEM NO.	PROJ. SPEC. SECT. & PARA. and/or PROJ. DWG. NO. *	ITEM IDENTIFICATION (Type, size, model no., Mfg. name, dwg. or brochure number)	NO. OF COPIES	ACTION CODES **	REVIEWER'S INITIALS CODE AND DATE
1	15201-6	Driller's Log	3	D	<i>[Signature]</i>
2	"	Electric Log & Gamma Log	3		<i>[Signature]</i>
3	"	Water Analysis	3		9-8-83
4	"	Sieve Analysis	3		
5	"	Recommendation & Data Submittal	3	D	

CONTRACTOR'S COMMENTS
[Signature]

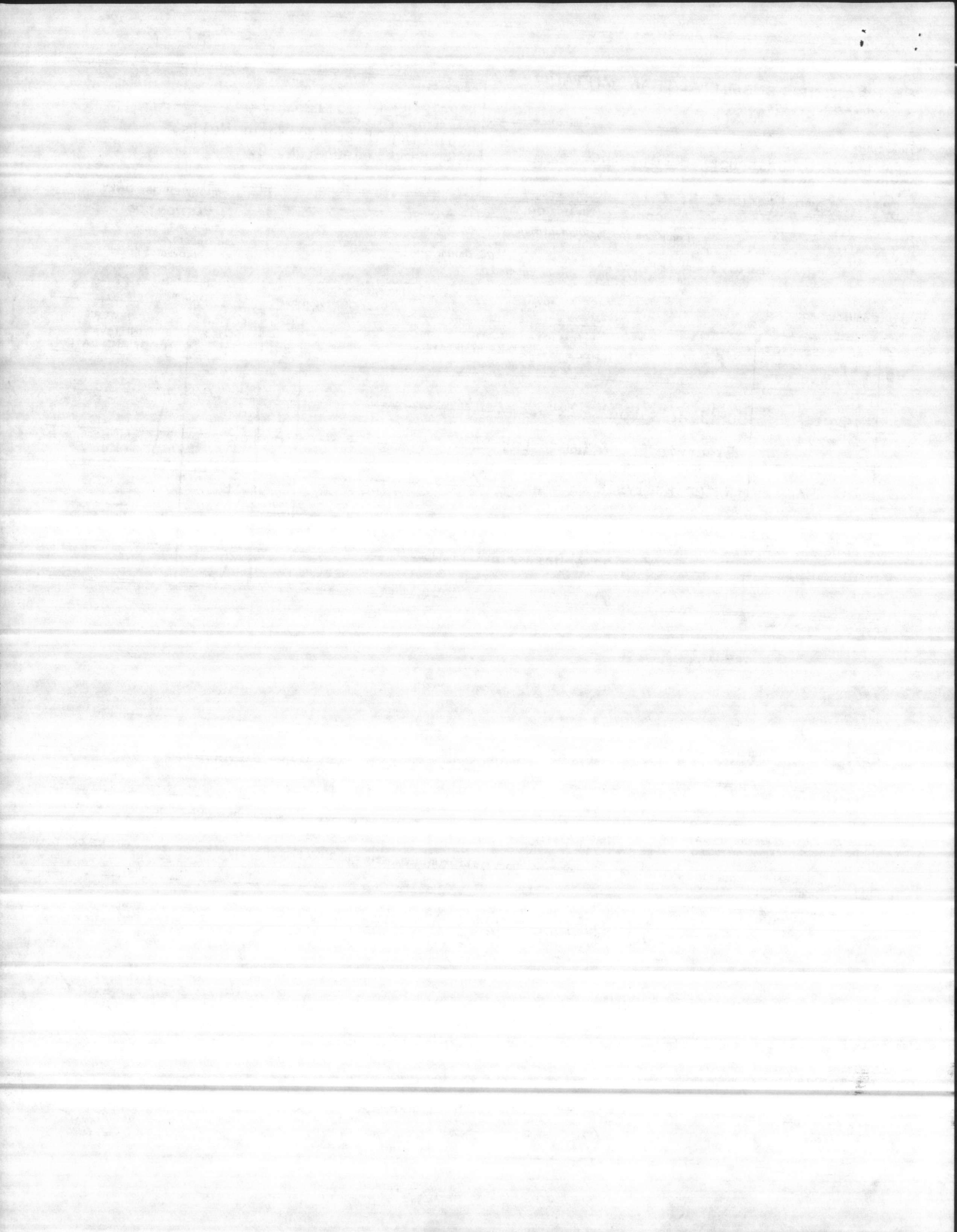
COPY OF TRANSMITTAL AND SUBMITTALS TO ROICC _____ CONTRACTOR REPRESENTATIVE (Signature) _____

DATE RECEIVED BY REVIEWER _____ FROM (Reviewer) _____ TO _____

- Submittals are returned with action indicated. Approval of an item does not include approval of any deviation from the contract requirements unless the contractor calls attention to and supports the deviation.
- Submittals are forwarded to LANTDIV with A-E recommendations indicated in REVIEWER USE ONLY Section and in comments below on ONE COPY of the transmittal form.

REVIEWER'S COMMENTS
well Relocated *Copy - Contractor Filed 9-1-83*

COPIES TO ROICC (2) LANTDIV (1) A-E (1) DATE **9-8-83** SIGNATURE **[Signature] ROICC**



ROUTING ORDER INT

1	60	OK
2		
3		
4		
5		
6		
7		
8		
RETURN TO		02

August 15, 1983

Officer in Charge of Construction
 Jacksonville North Carolina Area
 Marine Corps Base
 Camp LeJeune, North Carolina 28542

Subject: Replace Water Wells
 Buildings 601, M-168, & BB-43
 Construction Contract No. N62470-82-B-4551
 Enwright Job No. 82005-00-2-01

Gentlemen:

We have reviewed the attached submittal and offer the following comments (Please refer to second paragraph of the three letters dated July 5, 1983 from East Coast Construction Company):

- . The .30 inch slot for the stainless steel screens appears to be too large.
- . All wells shall be packed with gravel having a uniformity coefficient of not more than 2.5. The contractor recommends course sand.
- . Electric log for well number ~~M~~-601 was not submitted.
- . Well numbers M-168 and BB-43 do not meet specified yield.

We are requesting a resubmittal of the attached which should address the items mentioned above. Please advise as to acceptance or rejection of estimated yield for wells M-168 and BB-43.

Yours very truly,

ENWRIGHT ASSOCIATES, INC

Thomas E. Sharpe, Jr.
 Thomas E. Sharpe, Jr.
 Project Manager

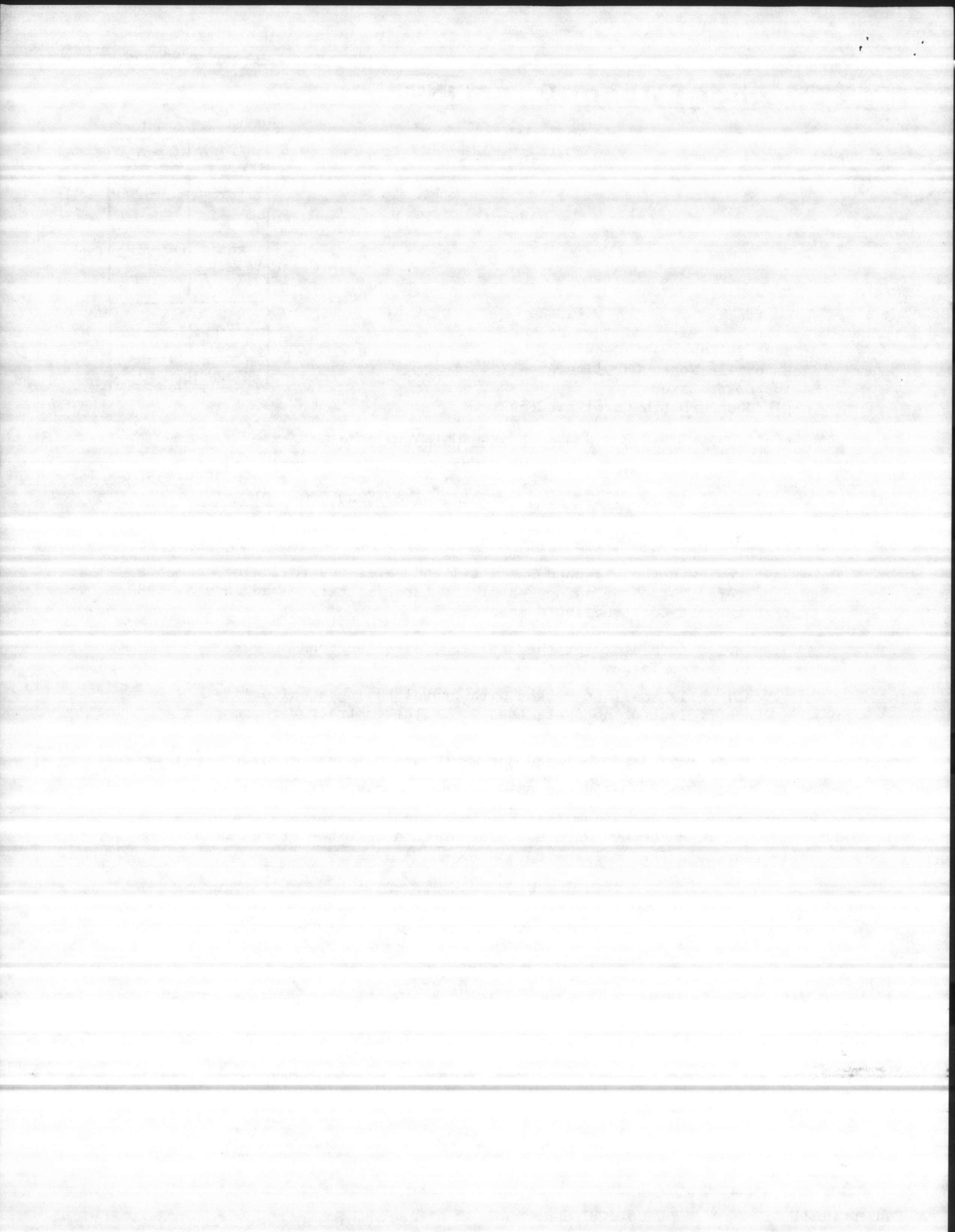
Sent 2 copies to East Coast

TES;jr/pdk

Attachment

cc: Mr. Fook-Kay Lee
 File





EAST COAST CONSTRUCTION COMPANY, INC.

GENERAL CONTRACTORS

Post Office Box 5004

JACKSONVILLE, NORTH CAROLINA 28540

August 25, 1983

Officer in Charge of Construction
Building 1005
Camp Lejeune, N. C. 28542

Re: N62470-82-C-4551
Replace Three (3) Water Wells

Gentlemen:

As per our telephone discussion and attached letter from Enwright and Associates, we submit the following:

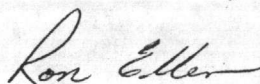
We are still recommending a .30 slot stainless steel screen and a course sand gravel pack. Sample attached. We base our recommendation on the attached sieve analysis from Johnson Company and our past experience in the development of water wells in this area.

We feel this method will offer the most efficient and productive well. As for the quantity of available water we base our recommendation on the attached gamma and electric logs and pumping test.

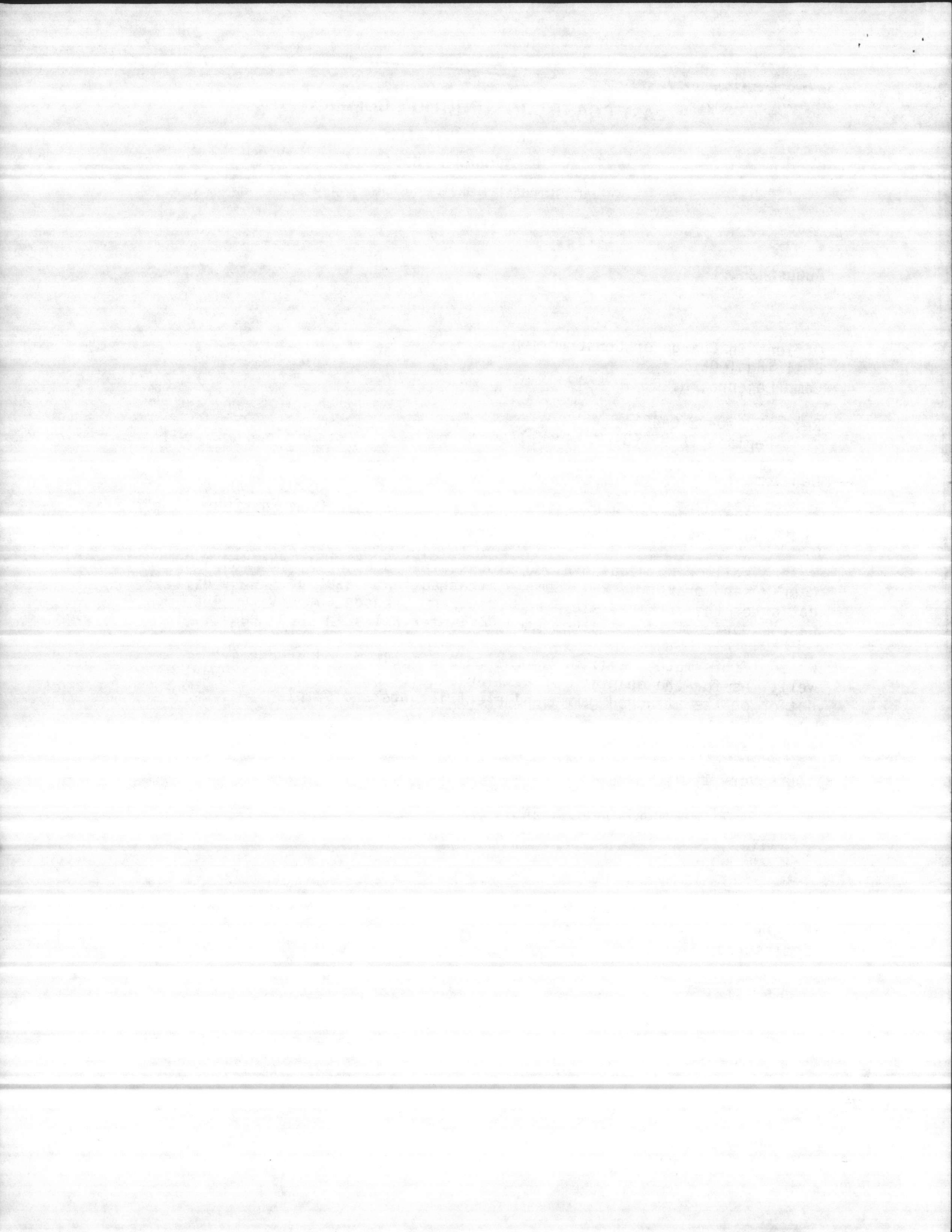
Should you have any questions please do not hesitate to contact us.

Yours very truly,

EAST COAST CONSTRUCTION CO., INC.


Ron Ellen

RRE/lm
Enclosures



July 05, 1983

Officer in Charge of Construction
Building 1005
Camp Lejeune, N. C. 28542

Re: N62470-82-C-4551
Replacing Three (3) Water Wells
Camp Lejeune, N. C.
Well No. M-168

Gentlemen:

We are enclosing six (6) copies of the Driller's Log, Electric Log, Gamma Log, Water Analysis and Sieve Analysis for your review. The test well was drilled at 250 feet deep. Water samples were taken at the 60'; 105'; and 210' levels.

We recommend a line of .30-slot stainless steel screens set at the 40' to 55'; and 192' to 227' levels for a total of 50 VF of screens. The gravel pack recommended is a coarse sand. It is our best estimate that this well may yield 200 GPM.

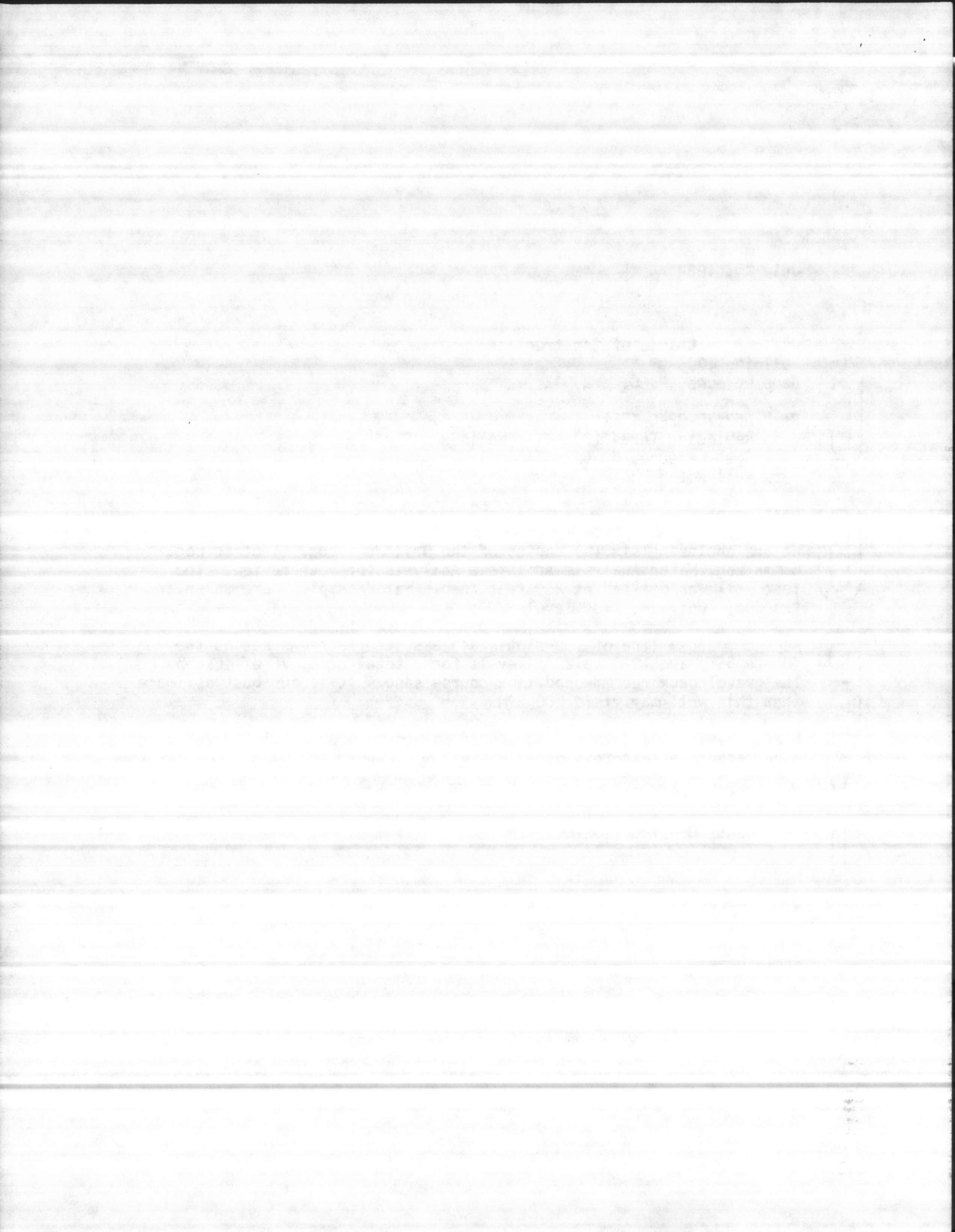
Please review the data and advise if we are to proceed with developing a permanent well at this site.

Yours very truly,

EAST COAST CONSTRUCTION CO., INC.

W. H. Myers

WHM/lm
Enclosures



EAST COAST CONSTRUCTION COMPANY, INC.

GENERAL CONTRACTORS

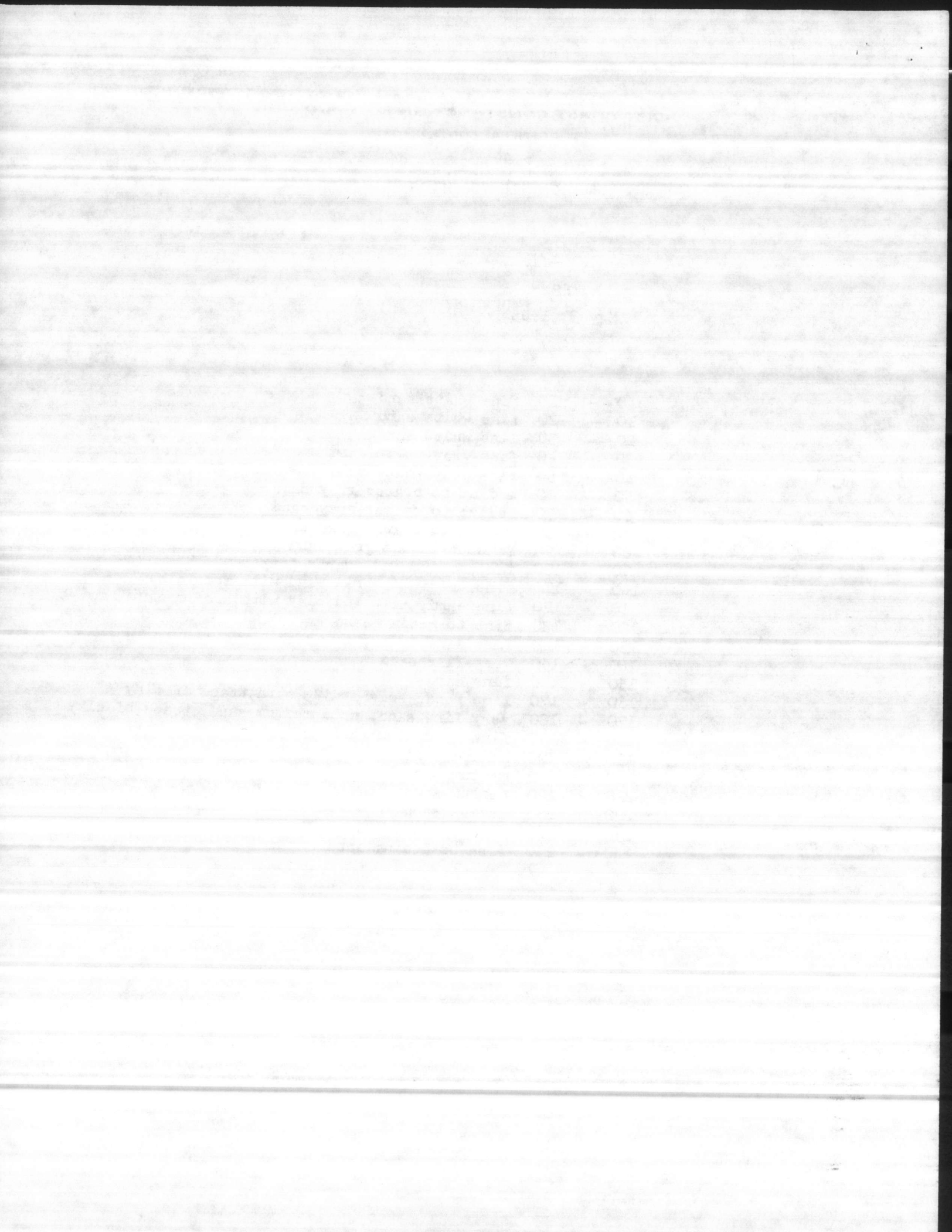
Post Office Box 5004

JACKSONVILLE, NORTH CAROLINA 28540

CAMP LEJEUNE
M-168

May 3, 1983

0	-	10	fine white sand
10	-	20	fine white sand
20	-	30	fine white sand
30	-	40	fine gray-white sand
40	-	50	fine gray-white sand
50	-	60	medium to coarse gray sand
60	-	70	medium to coarse gray sand
70	-	80	medium to coarse gray sand
80	-	90	fine to medium gray sand
90	-	100	fine, medium and coarse gray sand
100	-	110	fine, medium coarse sand with some clay
110	-	120	fine sand, silt and clay with some medium sand
120	-	130	fine to medium sand
130	-	140	fine sand
140	-	150	very fine sand
150	-	160	fine sand
160	-	170	fine sand, some medium sand, trace of clay
170	-	180	very fine sand, some medium sand, trace of clay
180	-	190	fine to medium sand
190	-	200	medium sand
200	-	210	medium sand
210	-	220	medium sand
220	-	230	medium sand
230	-	240	fine to medium sand
240	-	250	fine to medium sand



470-82-C-455

IRRIGATION
OTHERS

(RQ3) 479-4639

DATE: June 2, 1983

Report To: Carolina Well & Pump Co.
Sanford, N. C.

Date Analyzed: 6/2/83
Sample Number: Monkford Point- 60'

Contract: N62470-82-C-4551

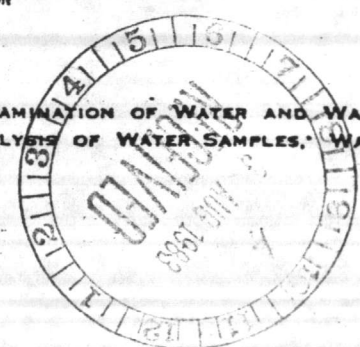
Analysis Results--Parts Per Million

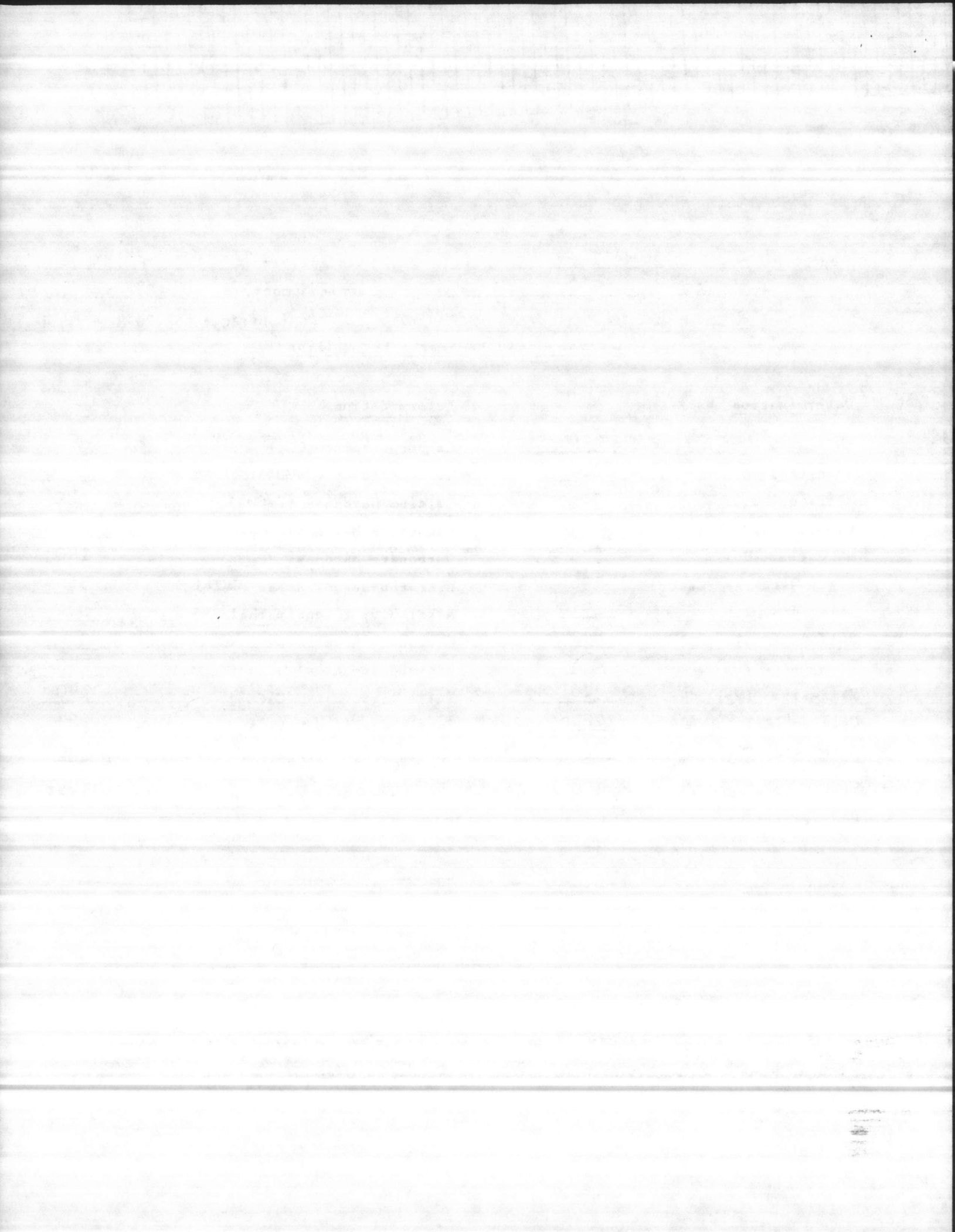
<u>Determination</u>		<u>Determination</u>	
pH	<u>6.6</u>	Carbon Dioxide (CO ₂)	<u>8</u>
Iron (Fe)	<u>0.1</u>	Total Acidity (CaCO ₃)	<u>14</u>
Nitrate (NO ₃)	<u>Trace</u>	Calcium Hardness (CaCO ₃)	<u>182</u>
Fluoride (F)	<u>0.3</u>	Magnesium Hardness (CaCO ₃)	<u>14</u>
Manganese (Mn)	<u>Trace</u>	Carbonate Hardness (CaCO ₃)	<u>140</u>
Total Hardness (CaCO ₃)	<u>196</u>	Noncarbonate Hardness (CaCO ₃)	<u>56</u>
Chlorides (Cl)	<u>14</u>	Alkalinity (Phenolphthalein) (CaCO ₃)	<u>0</u>
Sulfate (SO ₄)	<u>8.2</u>	Carbonate Alkalinity (CaCO ₃)	<u>0</u>
Phosphate (PO ₄)	<u>0</u>	Bicarbonate Alkalinity (CaCO ₃)	<u>140</u>
Magnesium (Mg)	<u>3.6</u>	Total Alkalinity (CaCO ₃)	<u>140</u>
Calcium (Ca)	<u>72.8</u>	Total Dissolved Solids	<u>224</u>
Carbonate (CO ₃)	<u>0</u>	Specific Conductance (micromhos at 25°)	<u>320</u>
Bicarbonate (HCO ₃)	<u>170</u>	Appearance When Analyzed	<u>Clear</u>
Hydroxide (OH)	<u>0</u>	Odor When Analyzed	<u>Not Objectionable</u>

Water & Power
802 Market Street

SIGNED: Bennett W. Scott
LABORATORY DIRECTOR

ANALYTICAL METHODS REFERENCES: 'STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTE-WATER,' APHA, AWWA AND WPCF AND 'METHODS FOR COLLECTION AND ANALYSIS OF WATER SAMPLES,' WATER SUPPLY PAPER 1434 (1960), U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C.





(483) 479-4639

38312

DEVELOPERS
IRRIGATION
OTHERS

DATE: June 2, 1983

Report To: Carolina Well & Pump Co.
Sanford, N. C.

Date Analyzed: 6/2/83
Sample Number: Monkford Point- 105'

Analysis Results--Parts Per Million

Determination

pH	<u>7.1</u>
Iron (Fe)	<u>0.15</u>
Nitrate (NO ₃)	<u>Trace</u>
Fluoride (F)	<u>0.5</u>
Manganese (Mn)	<u>Trace</u>
Total Hardness (CaCO ₃)	<u>204</u>
Chlorides (Cl)	<u>17</u>
Sulfate (SO ₄)	<u>12.6</u>
Phosphate (PO ₄)	<u>0</u>
Magnesium (Mg)	<u>4.3</u>
Calcium (Ca)	<u>71.2</u>
Carbonate (CO ₃)	<u>0</u>
Bicarbonate (HCO ₃)	<u>439</u>
Hydroxide (OH)	<u>0</u>

Determination

Carbon Dioxide (CO ₂)	<u>4</u>
Total Acidity (CaCO ₃)	<u>5</u>
Calcium Hardness (CaCO ₃)	<u>178</u>
Magnesium Hardness (CaCO ₃)	<u>26</u>
Carbonate Hardness (CaCO ₃)	<u>204</u>
Noncarbonate Hardness (CaCO ₃)	<u>0</u>
Alkalinity (Phenolphthalein) (CaCO ₃)	<u>0</u>
Carbonate Alkalinity (CaCO ₃)	<u>0</u>
Bicarbonate Alkalinity (CaCO ₃)	<u>360</u>
Total Alkalinity (CaCO ₃)	<u>360</u>
Total Dissolved Solids	<u>476</u>
Specific Conductance (micromhos at 25°)	<u>680</u>
Appearance When Analyzed	<u>Hazy</u>
Odor When Analyzed	<u>Not Objectionable</u>

Walter Hamilton

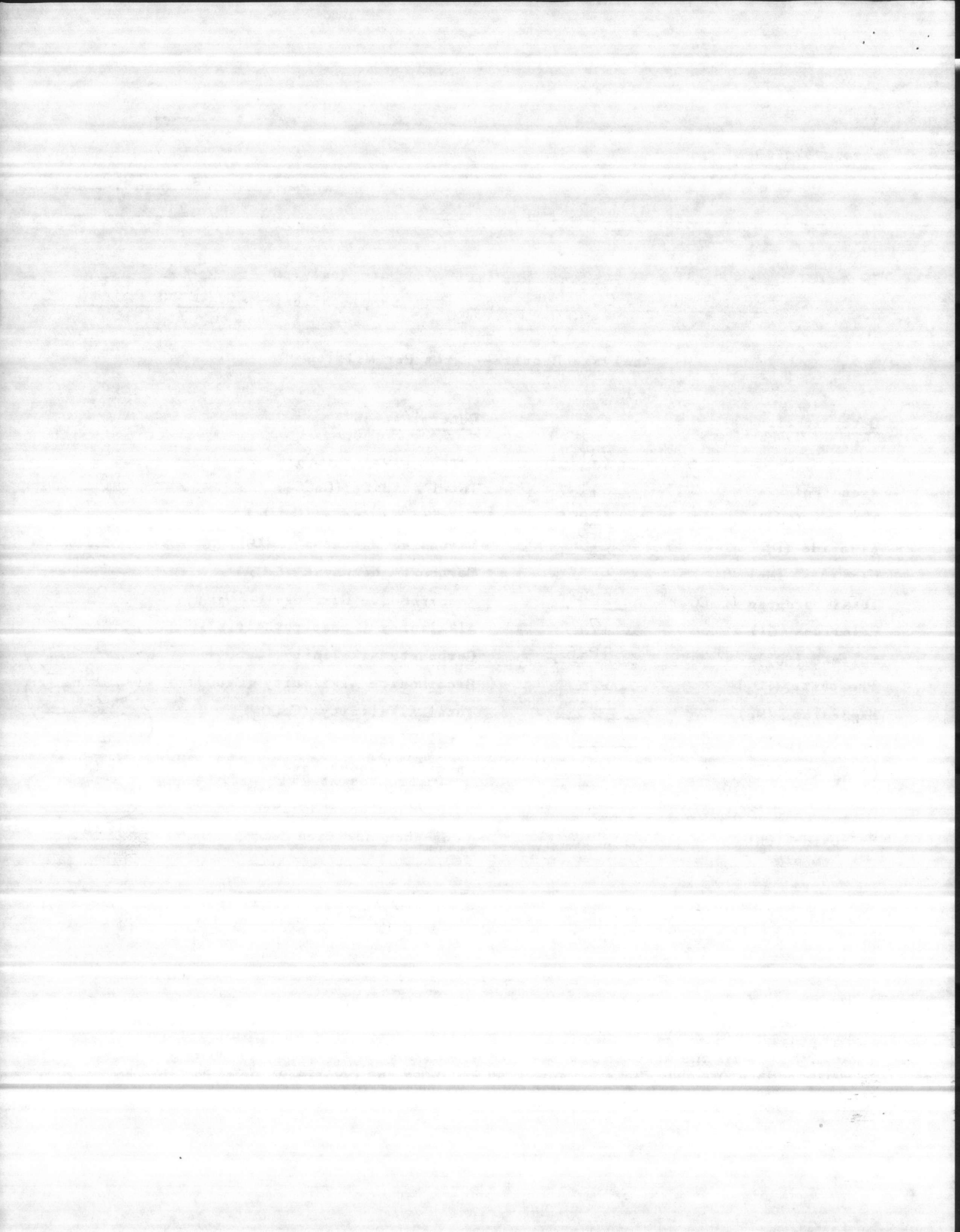
EC2, Hamlet, N.C.

SIGNED:

Parrotts Ave, South Carolina

LABORATORY DIRECTOR

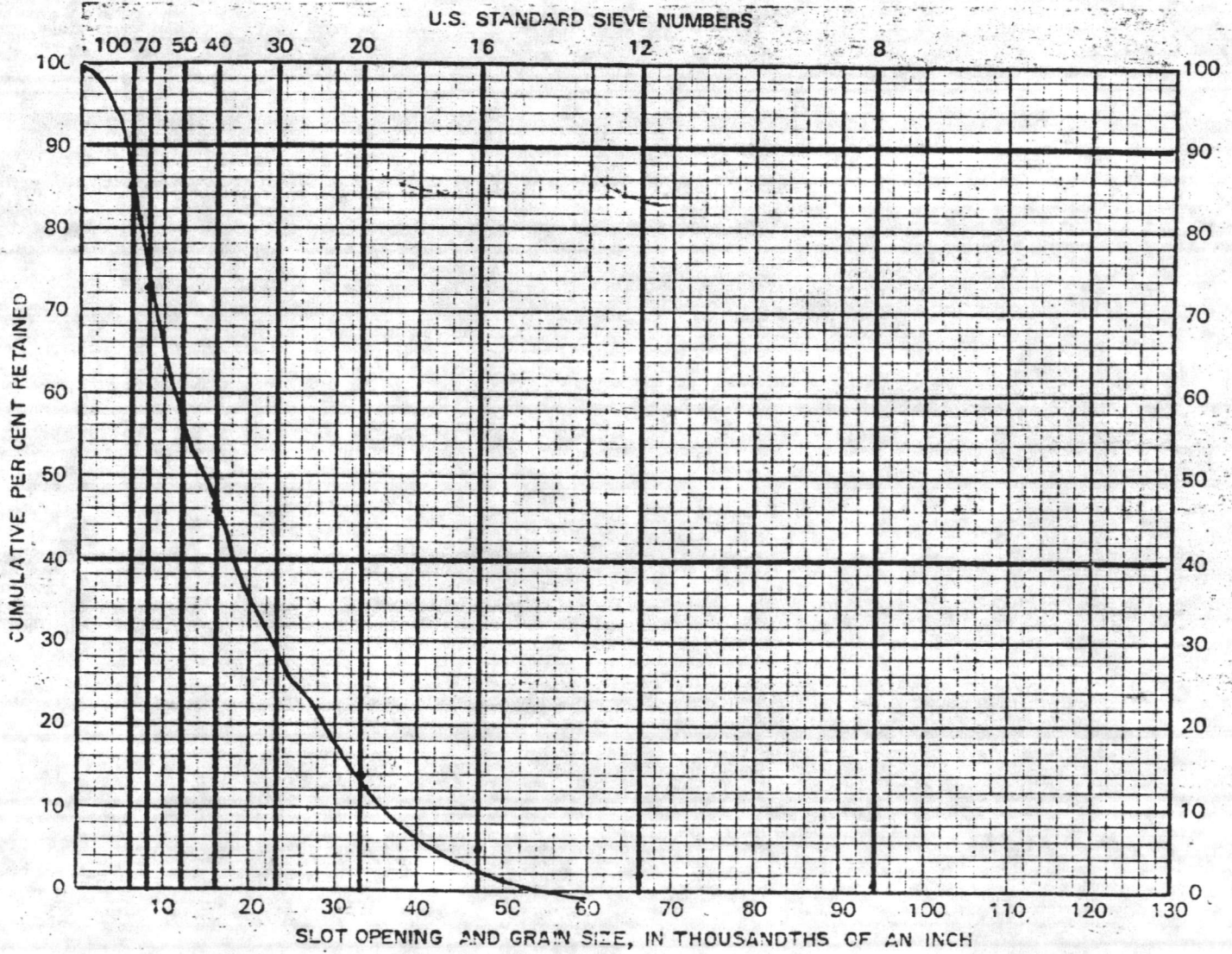
ANALYTICAL METHODS REFERENCES: 'STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTE-WATER,' APHA, AWWA AND WPCF AND 'METHODS FOR COLLECTION AND ANALYSIS OF WATER SAMPLES,' WATER SUPPLY PAPER 1434 (1960), U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C.



Carolina Well & Pump
 Town Sanford State N.C. Zip _____ Date 5-17-82

From well of Camp Lejeune (Guard House)

Remarks: _____
210-220



U.S. SIEVE NO.	SIEVE OPENING		CUMULATIVE % RETAINED
	INCHES	MM	
6	.132	3.36	
8	.094	2.38	
12	.066	1.68	
16	.047	1.19	
20	.033	0.84	
30	.023	0.60	
40	.016	0.42	
50	.012	0.30	
70	.009	0.21	
100	.005	0.15	

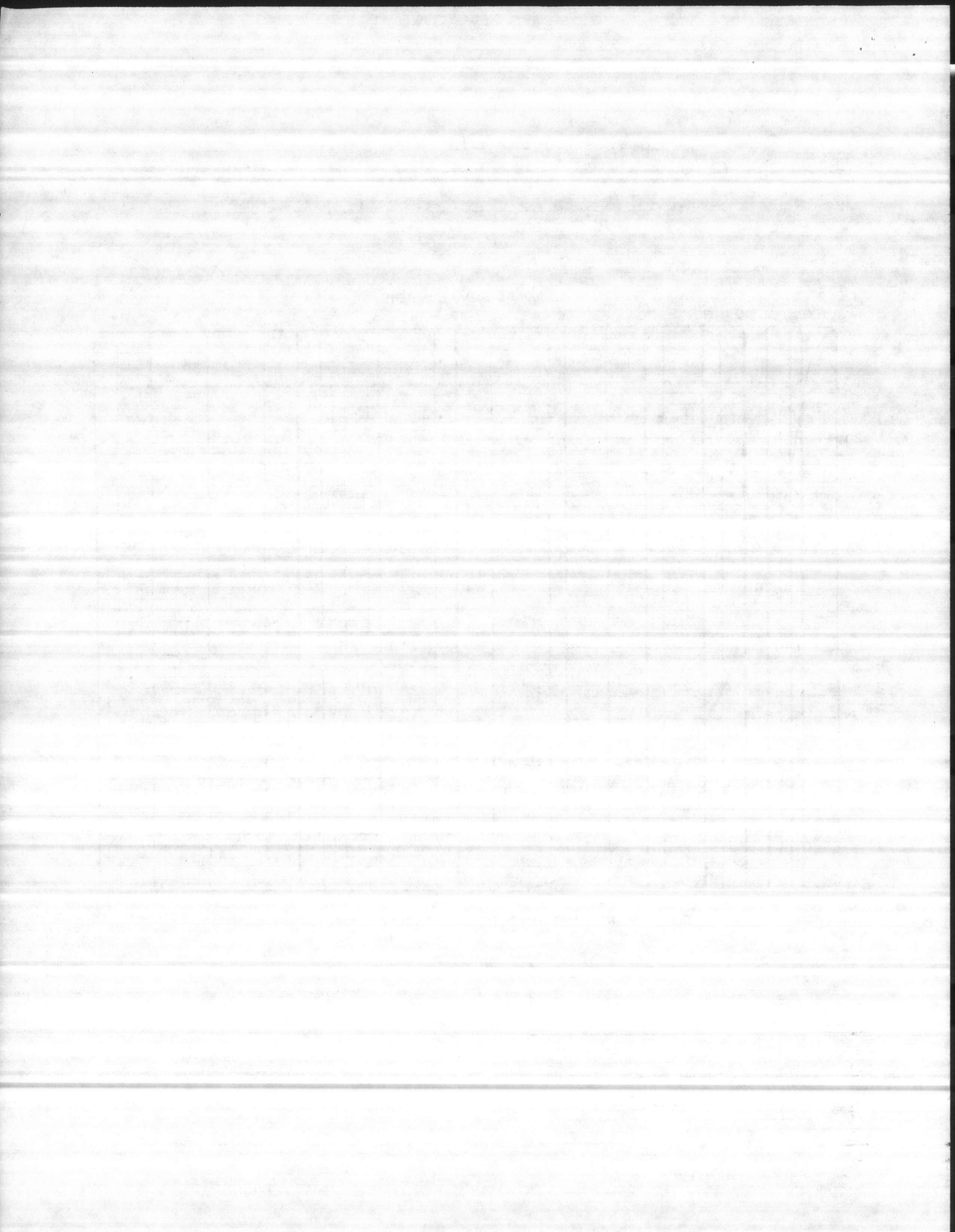
Notes: _____

 Recommended Slot Opening: _____

 Recommended Screen: Dia. _____ in. Length _____ Ft.

 By: _____

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT, WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS.

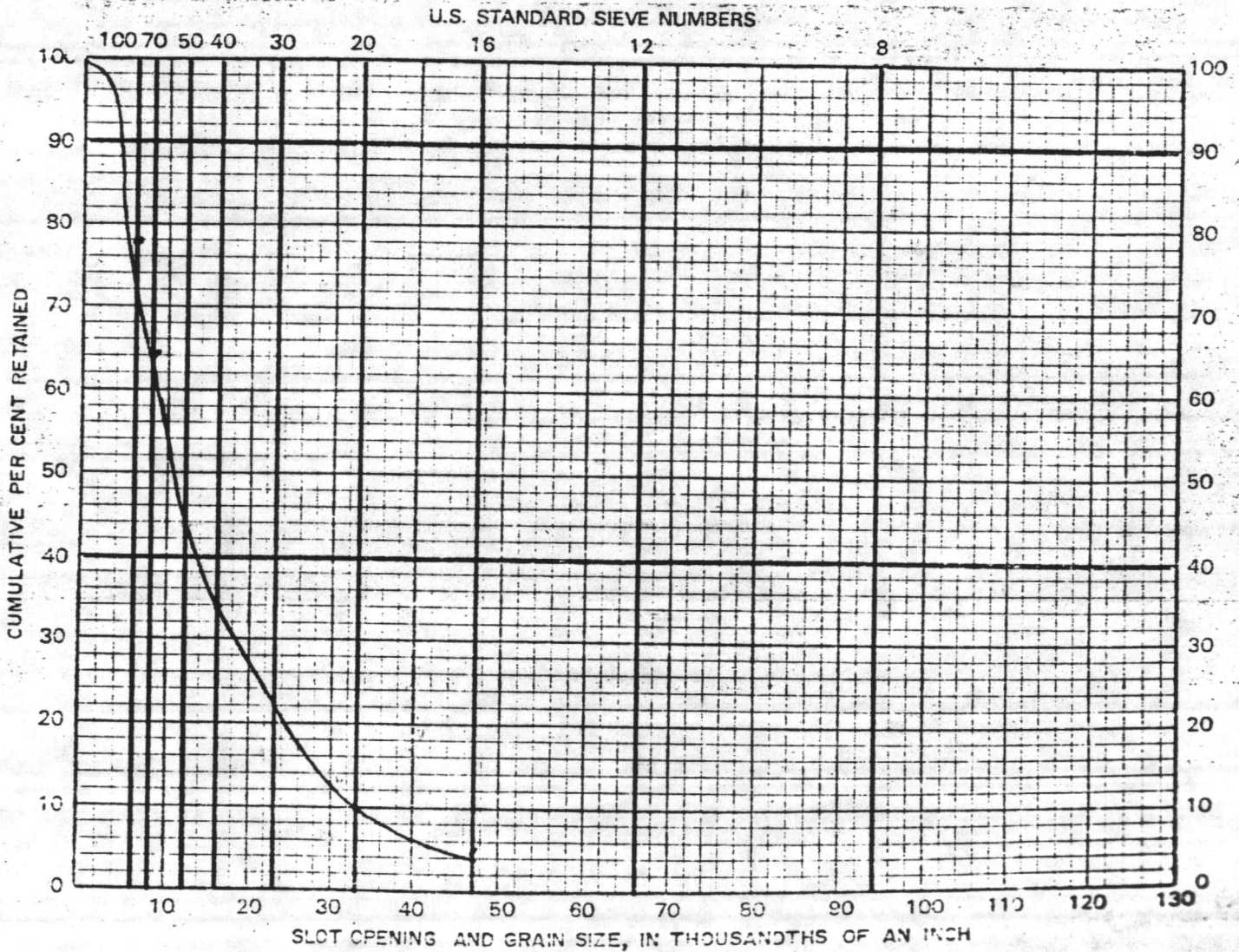


Sample sent in by _____

Town _____ State _____ Zip _____ Date _____

From well of _____

Remarks: 220-230



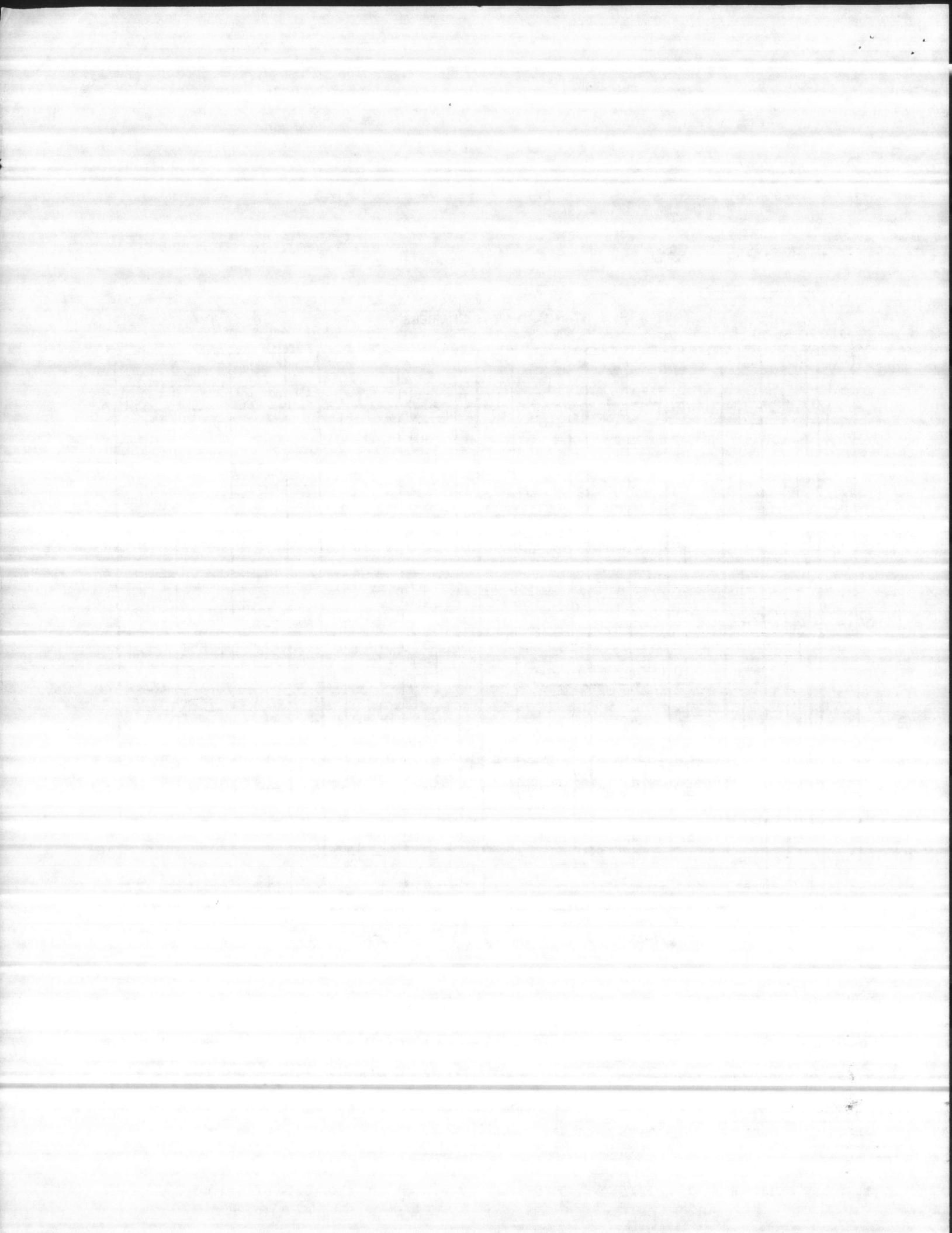
S. SIEVE NO.	SIEVE OPENING INCHES	SIEVE OPENING MM.	CUMULATIVE PERCENT RETAINED
6	1.32	3.36	
8	.094	2.38	
12	.056	1.68	
16	.047	1.19	
20	.033	0.84	
30	.023	0.60	
40	.016	0.42	
50	.012	0.30	
70	.008	0.21	
100	.006	0.15	

Notes: _____

Recommended Slot Opening: _____

Recommended Screen: Dia. _____ in. Length _____ Ft.

By: BPV





Telephone 612-636-3900 • Telex 29-1451

uop Inc.

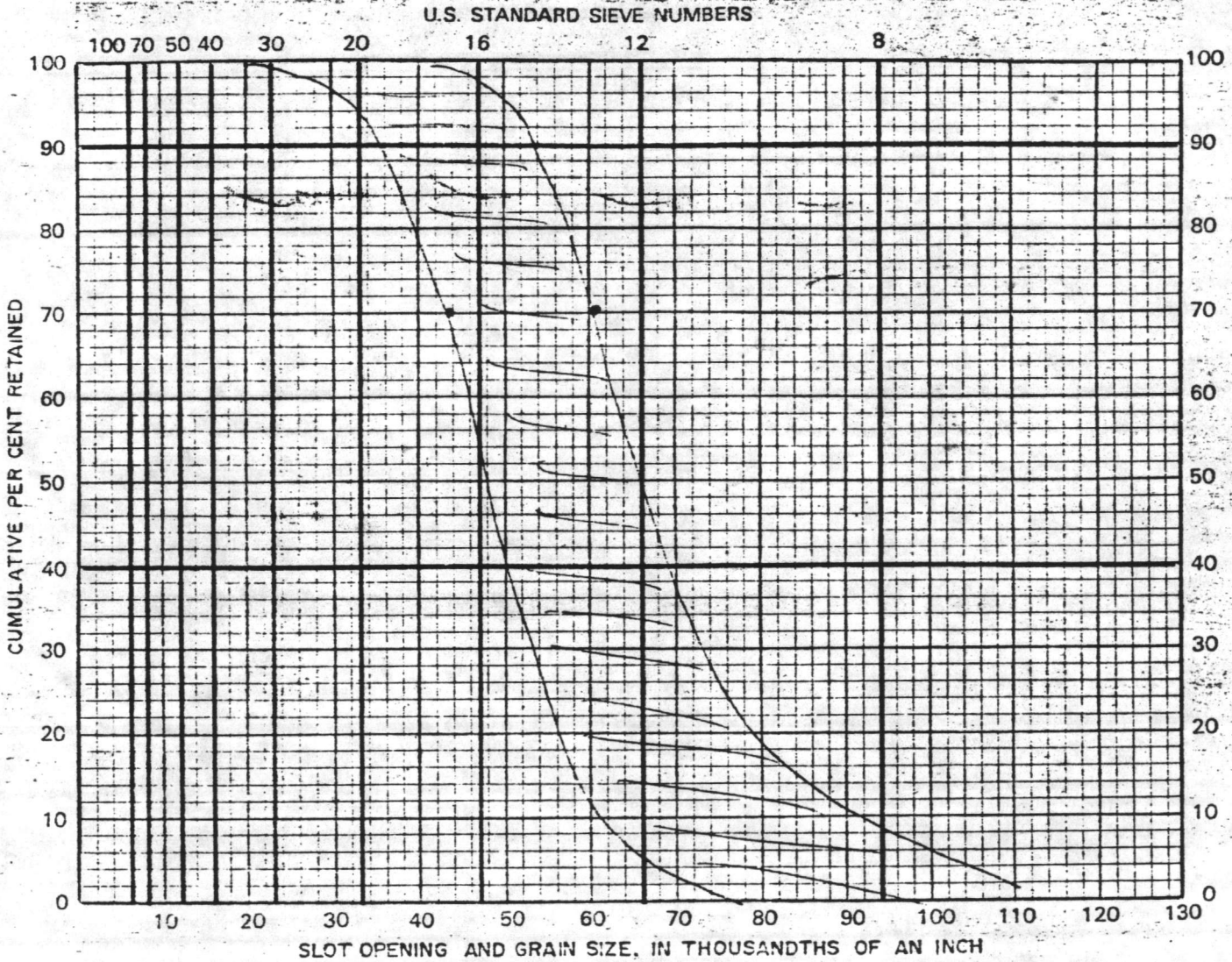
MAILING ADDRESS: P.O. BOX 43118
ST. PAUL, MINNESOTA • 55164

Sample sent in by _____

Town _____ State _____ Zip _____ Date 5-17-83

From well of _____

Remarks: Recommended Gravel Pack for
Camp Lejeune (Guard House) [Field Copy]



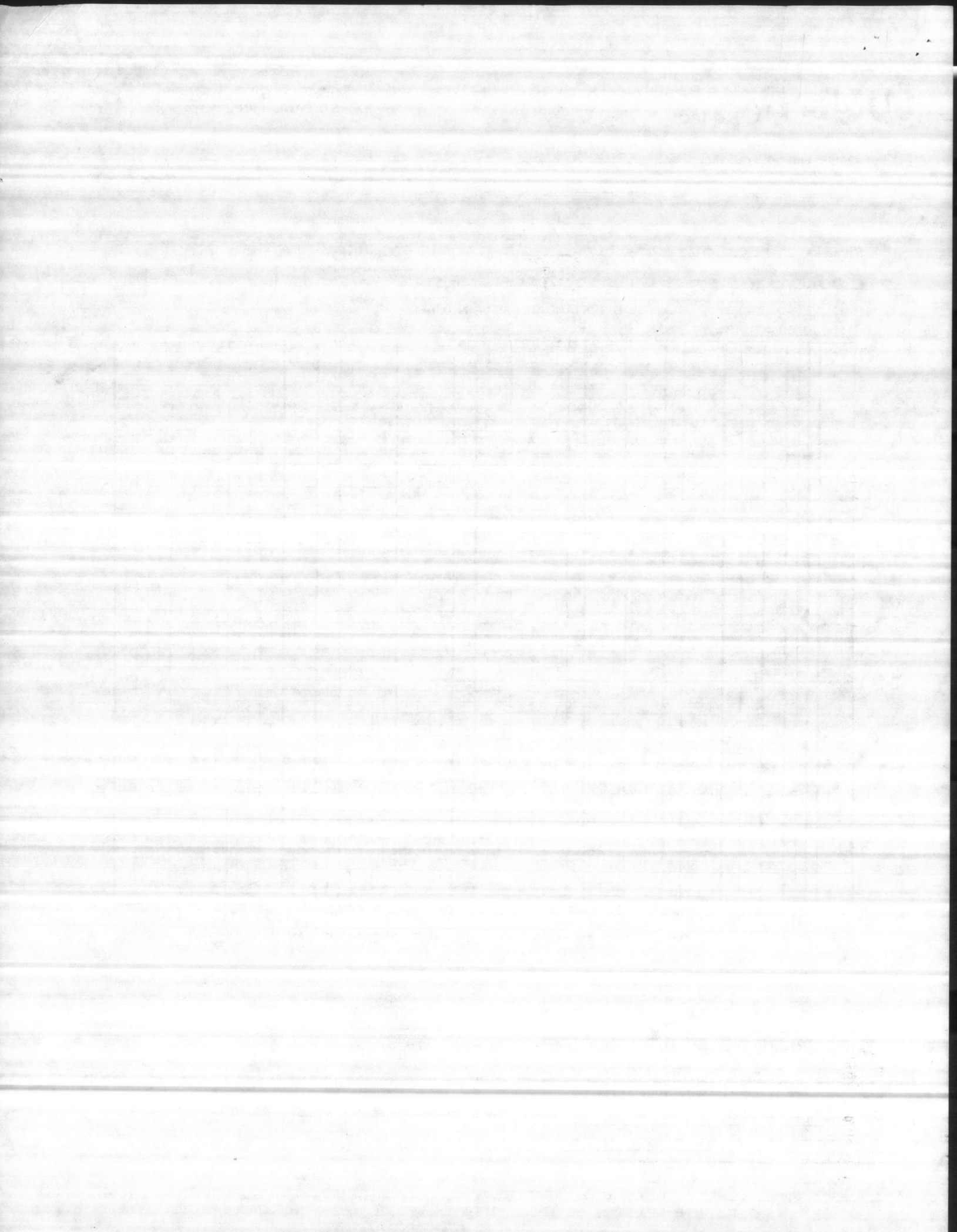
U.S. SIEVE NO.	SIEVE OPENING INCHES	MM	CUMULATIVE % RETAINED
6	.132	3.36	
8	.094	2.38	
12	.066	1.68	
16	.047	1.19	
20	.033	0.84	
30	.023	0.60	
40	.016	0.42	
50	.012	0.30	
70	.008	0.21	
100	.006	0.15	

Notes: _____

Recommended Slot Opening: _____

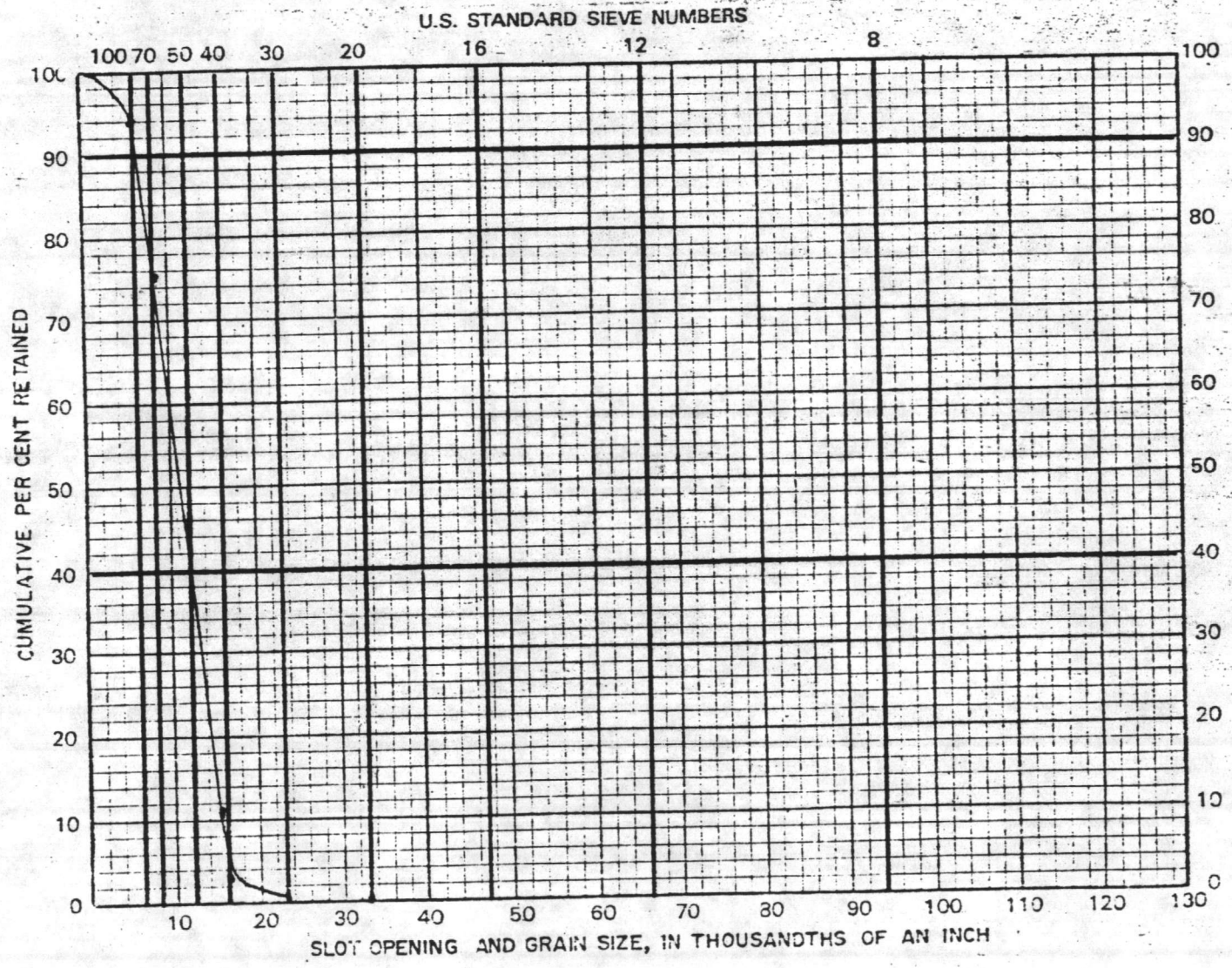
Recommended Screen: Dia. _____ in. Length 15 Ft.

By: BAV



Sample sent in by Carolina Well & Pump Co
 Town Sanford State NC Zip _____ Date 5-17-83
 From well of Camp LeJeune (Garard House)
 Contract N62470-82-C-4551
 Remarks: 40-50

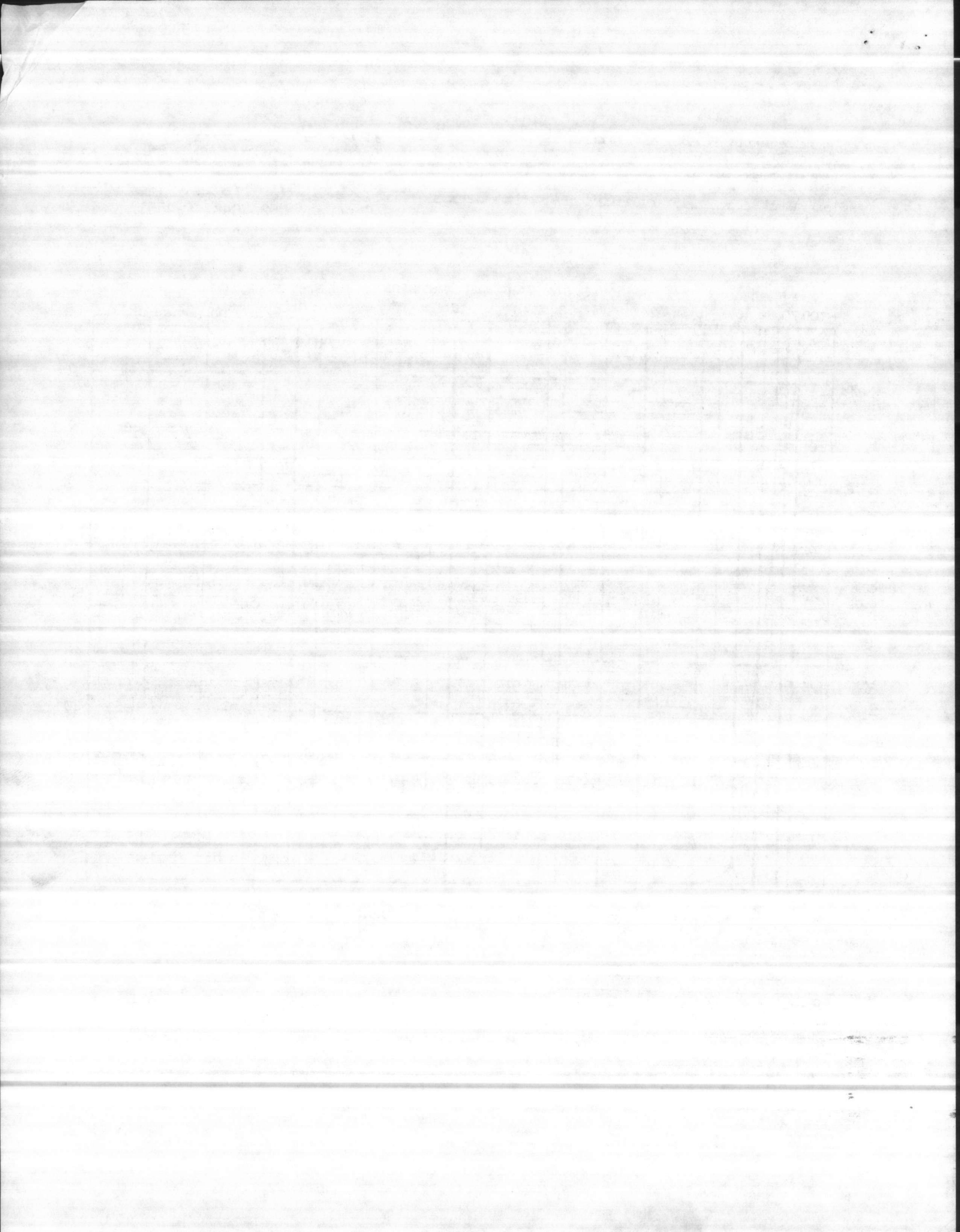
- Field Copies -



U.S. SIEVE NO.	SIEVE OPENING INCHES	SIEVE OPENING MM	CUMULATIVE % RETAINED
6	.132	3.36	
8	.094	2.38	
12	.066	1.68	
16	.047	1.19	
20	.030	0.84	1
30	.020	0.60	
40	.015	0.42	3
50	.012	0.30	
70	.008	0.21	75
100	.006	0.15	94

Notes: _____
 Recommended Slot Opening: _____
 Recommended Screen: Dia. _____ in. Length _____ Ft.
 By: BPV

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT, WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS.



Sample sent in by _____

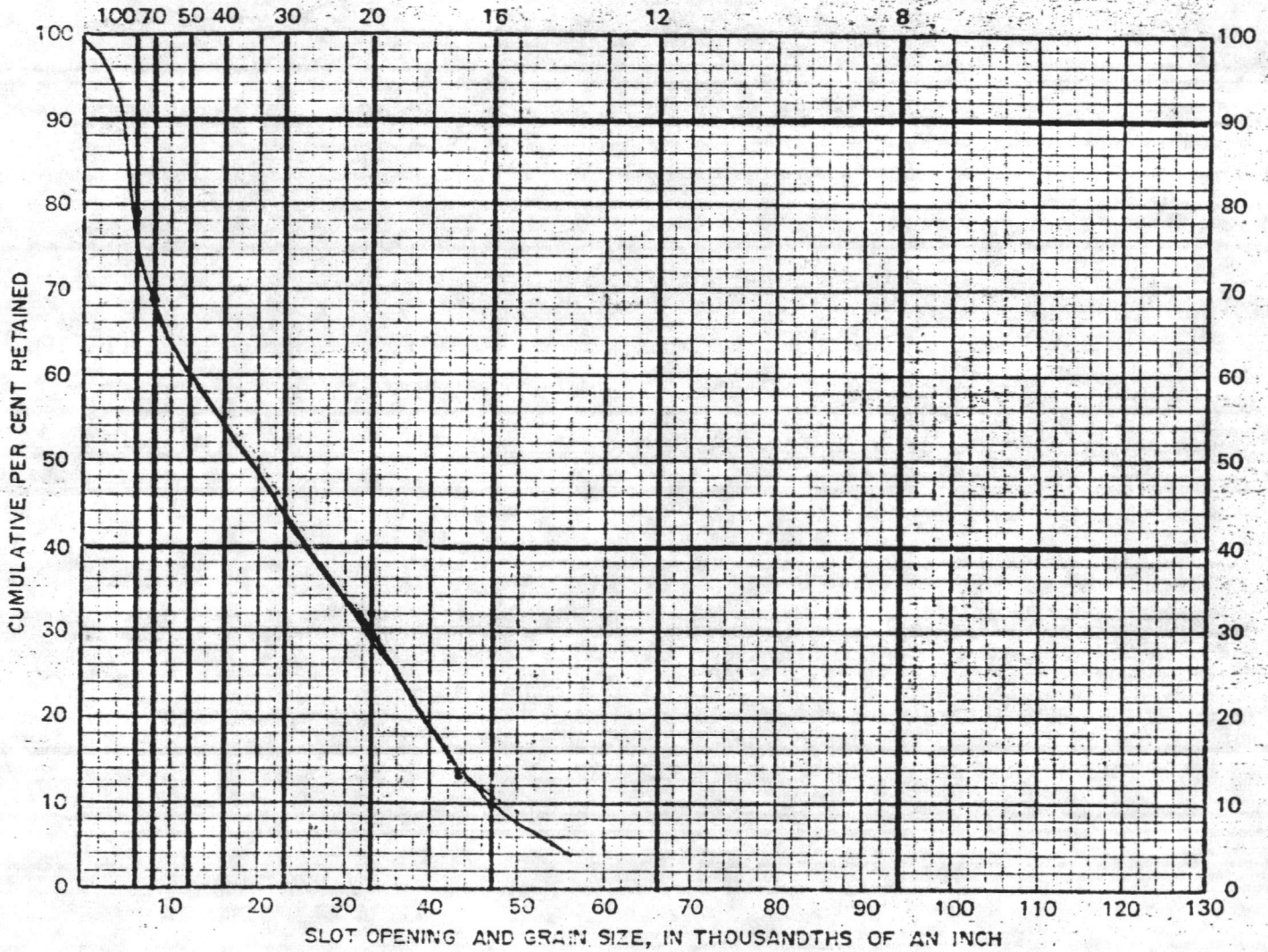
Town _____ State _____ Zip _____ Date _____

From well of _____

Remarks: 190-200

200-210

U.S. STANDARD SIEVE NUMBERS



U.S. SIEVE NO.	SIEVE OPENING IN INCHES	SIEVE OPENING IN MM	CUMULATIVE PERCENT RETAINED
6	.25	3.36	
8	.094	2.38	
12	.066	1.68	
16	.047	1.19	
20	.033	0.84	
30	.023	0.60	
40	.016	0.42	
50	.012	0.30	
70	.008	0.21	
100	.006	0.15	

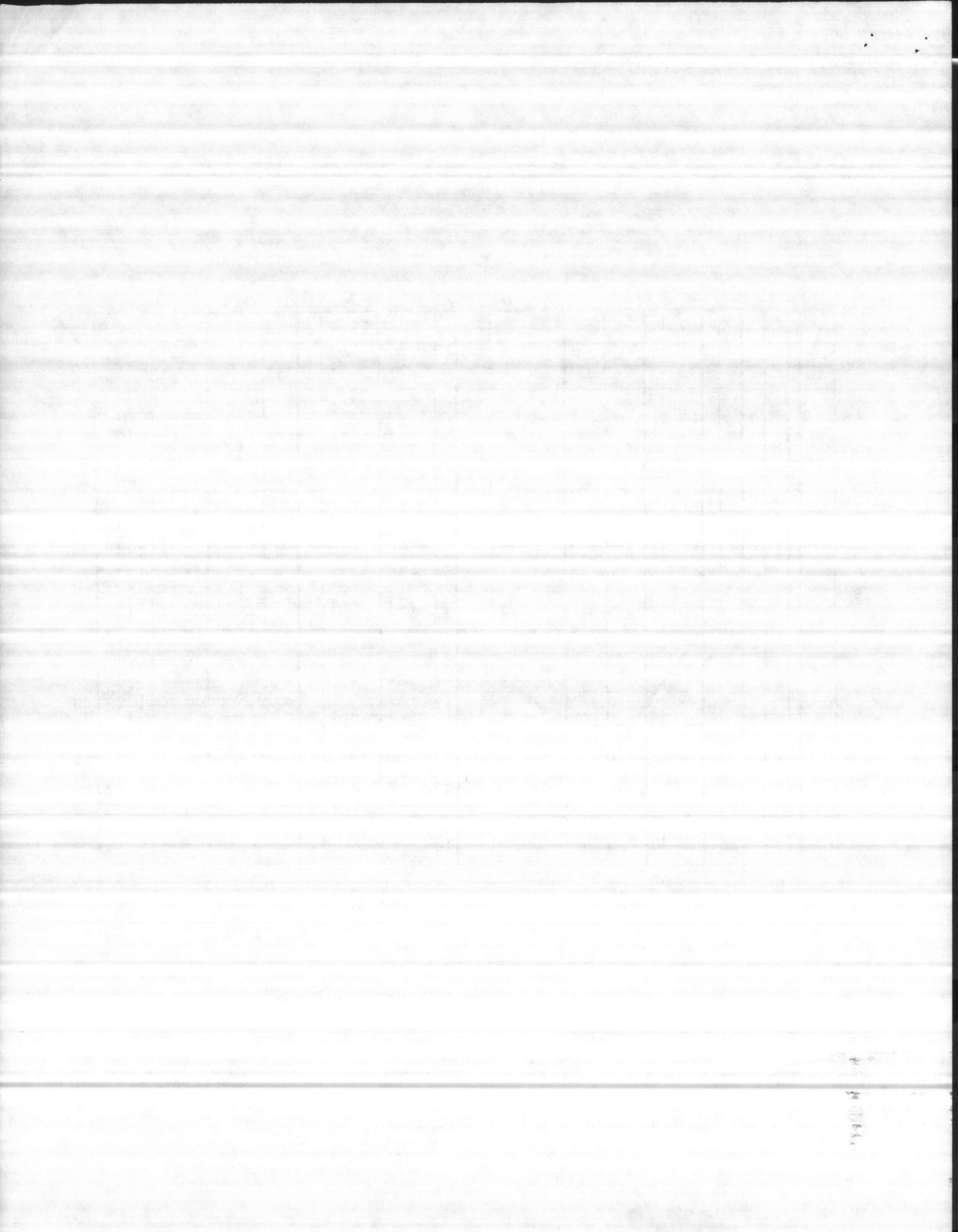
Notes: _____

Recommended Slot Opening: _____

Recommended Screen Dia. _____ in. Length _____ Ft.

By: _____

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(RQ3) 479-4639

DATE: June 2, 1983

Report To: Carolina Well & Pump Co.
Sanford, N. C.

Date Analyzed: 6/2/83
Sample Number: Monkford Point-210'

Analysis Results--Parts Per Million

Determination

pH 6.9
Iron (Fe) 0.1
Nitrate (NO₃) Trace
Fluoride (F) 0.6
Manganese (Mn) Trace
Total Hardness (CaCO₃) 210
Chlorides (Cl) 22
Sulfate (SO₄) 14.6
Phosphate (PO₄) 0
Magnesium (Mg) 4.8
Calcium (Ca) 76.2
Carbonate (CO₃) 0
Bicarbonate (HCO₃) 317
Hydroxide (OH) 0

Determination

Carbon Dioxide (CO₂) 6
Total Acidity (CaCO₃) 9
Calcium Hardness (CaCO₃) 190
Magnesium Hardness (CaCO₃) 20
Carbonate Hardness (CaCO₃) 210
Noncarbonate Hardness (CaCO₃) 0
Alkalinity (Phenolphthalein) (CaCO₃) 0
Carbonate Alkalinity (CaCO₃) 0
Bicarbonate Alkalinity (CaCO₃) 260
Total Alkalinity (CaCO₃) 260
Total Dissolved Solids 378
Specific Conductance
(micromhos at 25°) 540
Appearance When Analyzed Clear
Odor When Analyzed Not Objectionable

Water Analysis Laboratory

802 Hampton Highway

Bennettsville, South Carolina 29912

SIGNED: _____

LABORATORY DIRECTOR

