FILE FOLDER

DESCRIPTION ON TAB:

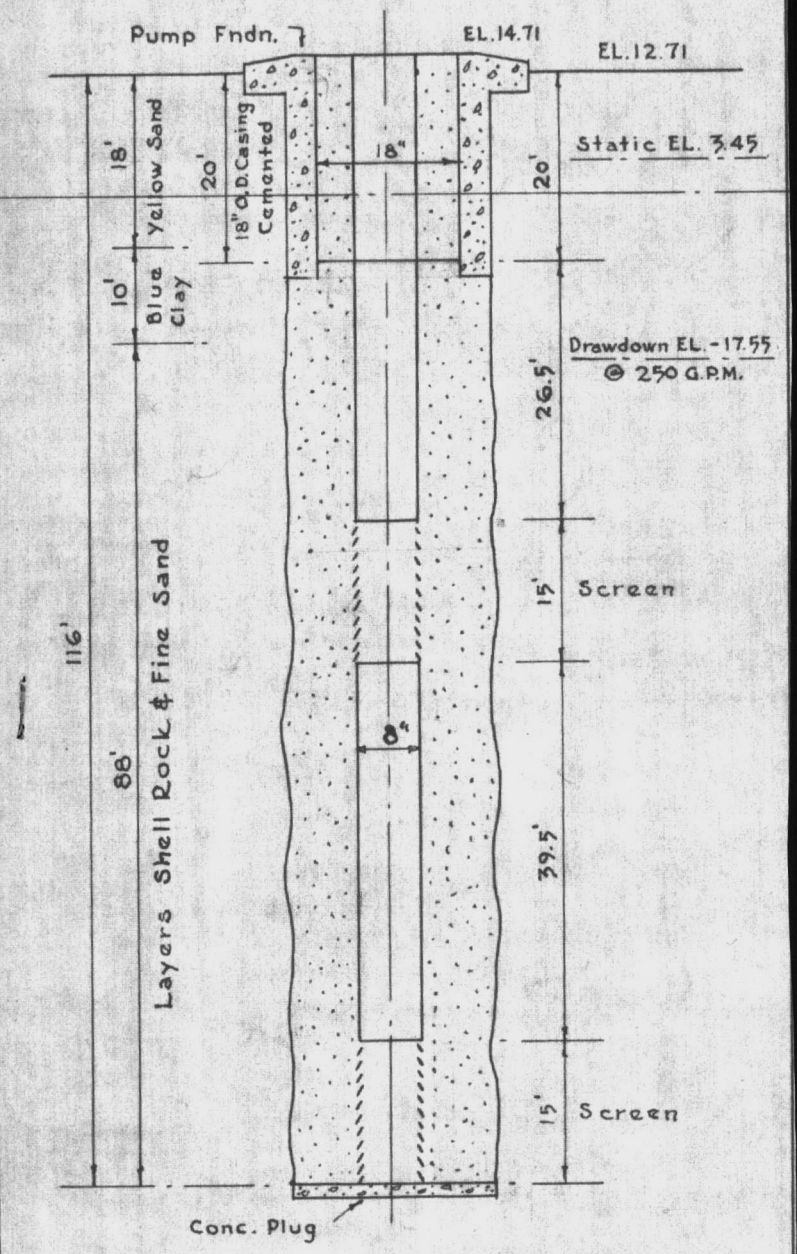
B.B. Well A-5

☑ **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**

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

250 G.P.M. - DUAL DRIVE - 15 H.P.



AMPHIBIAN BASE WELL "U"

FORM A-4
(JUNE '66)

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, 1968

1. AGENCY CODE	2. TYPE	3. LATITUDE	4. LONGITUDE	5.
MC	Q	° ' " N 34 35 30	° ' " W 77 22 34	

6. AGENCY STATION NO.	7. STATION NAME
A5	A5-U

8. DRAINAGE BASIN CODE No.	Letter	9. STATE CODE	10. COUNTY CODE	11. COUNTY NAME
6	N	32	133	ONSLOW

12. PERIOD OF RECORD Began	Discontinued	Y ☐ Continuous Interruption Exceeds 1 Year	13.	14.
1942				

15. SITE

- ☐ 101 Stream
- ☐ 102 Canal
- ☐ 103 Lake
- ☐ 104 Reservoir
- ☐ 105 Estuary
- ☐ 106 Spring
- ☒ 107 Well
- ☐ 110 Other

16. FREQUENCY OF MEASUREMENT

- ☐ 201 Continuous Recorder
- ☐ 202 Telemetered
- ☐ 203 Daily
- ☐ 204 Weekly
- ☐ 205 Monthly
- ☐ 206 Quarterly
- ☐ 207 Seasonal
- ☐ 208 Annual
- ☐ 209 Other Periodic
- ☒ 210 Occasional

17. TYPES OF DATA AVAILABLE

Physical

- ☐ 311 Temperature
- ☐ 312 Specific Conductance
- ☐ 313 Turbidity
- ☐ 314 Color
- ☐ 315 Odor
- ☐ 316 Radioactivity
- ☐ 317 pH (field)
- ☒ 318 pH (lab)
- ☐ 319 Eh
- ☐ 320 Other

Chemical

- ☐ 331 Dissolved solids
- ☒ 332 Chlorides Only
- ☐ 333 Nutrients (Nitrogen and phosphorus compounds)
- ☐ 334 Common ions
- ☒ 335 Hardness
- ☐ 336 Radiochemical
- ☐ 337 Dissolved oxygen
- ☐ 338 Other Gases
- ☐ 339 Other

Organic

- ☐ 351 Pesticides (insecticides, herbicides, etc.)
- ☐ 352 Synthetic detergents
- ☐ 353 Other

Biologic

- ☐ 361 Coliforms
- ☐ 362 Other Micro-organisms
- ☐ 363 BOD
- ☐ 364 Other

Sediment

- ☐ 371 Concentration
- ☐ 372 Particle size
- ☐ 373 Other

18. SUPPLEMENTARY DATA FOR SITE

- ☐ 421 Surface Water Station
- ☐ 422 Ground Water Station
- ☐ 423 Water Stage or Level
- ☒ 424 Water discharge
- ☐ 425 Time of Travel
- ☐ 426 Drainage Area

19. STORAGE OF DATA

- ☐ 501 Periodic Report
- ☐ 502 Areal Report
- ☒ 503 Not Published
- ☐ 504 Data on Punchcard
- ☐ 505 Data on Magnetic Tape
- ☐ 506 Other

20. OFFICE AT WHICH DATA AVAILABLE

Office BASE MAINTENANCE DEPARTMENT, UTILITIES DIVISION

Street No. MARINE CORPS BASE

City, State, Zip CAMP LEJEUNE, N. C. 28542

City Code 0735

21. OFFICE COMPLETING FORM

BASE MAINTENANCE DEPARTMENT

22. COMPILER'S NAME

F. E. TEW, JR.

23. DATE Month 09 Year 19 66

09 66

Sheet 1

Marine Barracks
New River, N. C.
April 9, 1942

Wells: Permanent Water Supply
Amphibian Base

By Layne Atlantic Company

Report on Well No. 1, this area Well U

Location: 230 feet west of center line of access road at station 17 & 67

Date Drilled: February, 1942

Drilling Equipment: Rotary rig, bits, and other equipment

Status: Ground elevation 12.71

A 17½" hole was drilled to a depth of 21'. This was reamed to 23" in diameter. 20' of 18" I.D. Steel casing was set and the anular space was filled with cement grout from bottom to top. A 17½ hole was then drilled inside the casing to a total depth of 120'.

Log of Formation:		
	0 to 1'	Black top soil
	1' to 18'	Fine yellow sand
	18' to 28'	Blue clay
	28' to 60'	Coquina rock and fine sand
	60' to 120'	Coquina rock and fine sand in layers. Sand tight and runs easily

Remarks: Due to the presence of layers of fine sand between the coquina rock, it was necessary to construct a gravel wall well.

Gravel Wall Construction: 86' of 8" steel pipe and 30' of 8" silician bronze shutter screen was placed in the well, and the anular space around this was pumps full of a special ¼" cape may gravel.

Log of Screen Setting:		
	0 to 46'6"	8" Blank pipe
	46'6" to 61'6"	8" Bronze screen
	61'6" to 101'	8" Blank pipe
	101' to 116'	8" Bronze pipe

The bottom of the screen was closed with a cement plug and then capped with a steel plate.

Sheet 2

Static Water Level: 9'3" below surface

Pumping: Well pumps 450 gallons per minute with a drawdown of 38'9" below static level. This is approximately 11.61 gallons per foot of drawdown. Pumps 355 gallons per minute with a drawdown of 28'9" below static level. This is approximately 12.35 gallons per foot of draw down.

Due to the presence of chlorides, the well was pumped continuously for 48 hours to see if the chlorides would increase.

See separate report for chemical analysis.

Report will be made of pump installation.

N. H. Kellam
Asst. Chem. Engineer

Well # U-CGA

Date	Line Ft.	G.P.M.	D.D. El.	Static El.	Shut off Head	D.D. Ft.

REPAIRS

11-5-69 - PUMP REPLACED

Air Line

Sheet 1

Marine Barracks
New River, N. C.
April 9, 1942

Wells: Permanent Water Supply
Amphibian Base

By Layne Atlantic Company

Report on Well No. 1, this area

Location: 230 feet west of center line of access road at station 17 & 67

Date Drilled: February, 1942

Drilling Equipment: Rotary rig, bits, and other equipment

Status: Ground elevation 12.71

A 17½" hole was drilled to a depth of 21'. This was reamed to 23" in diameter. 20' of 18" I.D. Steel casing was set and the anular space was filled with cement grout from bottom to top. A 17½ hole was then drilled inside the casing to a total depth of 120'.

Log of Formation:		
	0 to 1'	Black top soil
	1' to 18'	Fine yellow sand
	18' to 28'	Blue clay
	28' to 60'	Coquina rock and fine sand
	60' to 120'	Coquina rock and fine sand in layers. Sand tight and runs easily

Remarks: Due to the presence of layers of fine sand between the coquina rock, it was necessary to construct a gravel wall well.

Gravel Wall Construction: 86' of 8" steel pipe and 30' of 8" silician bronze shutter screen was placed in the well, and the anular space around this was pumps full of a special ¼" cape may gravel.

Log of Screen Setting:		
	0 to 46'6"	8" Blank pipe
	46'6" to 61'6"	8" Bronze screen
	61'6" to 101'	8" Blank pipe
	101' to 116'	8" Bronze pipe

The bottom of the screen was closed with a cement plug and then capped with a steel plate.

Static Water Level: 9'3" below surface

Pumping: Well pumps 450 gallons per minute with a drawdown of 38'9" below static level. This is approximately 11.61 gallons per foot of drawdown. Pumps 355 gallons per minute with a drawdown of 28'9" below static level. This is approximately 12.35 gallons per foot of draw down.

Due to the presence of chlorides, the well was pumped continuously for 48 hours to see if the chlorides would increase.

See separate report for chemical analysis.

Report will be made of pump installation.

N. H. Kellam
Asst. Chem. Engineer

WATER ANALYSIS

By N. H. Kellam

Date 2-23-42

Sample from Amphibian Base Well

Total Solids 260 PPM Dissolved Solids 230 PPM

Suspended Solids 30 PPM Volatile Solids 70 PPM

Phenol. Alk. as $CaCo_3$ 0 PPM Silica as Sio_2 20 PPM

Total Alk. " " 120 " Ferrous Iron as Fe 0 "

Carbonates " " 0 " Total Iron as Fe 0.3 "

Bicarbonates " " 120 " Aluminum as Al. 1.1 "

Chlorides as Cl. 50 " Calcium as Ca. 45.0 "

Sulphates as SO_4 9 " Magnesium as Mg. 15.1 "

Nitrites as No_2 0 " Sodium as Na. 13.4 "

Carbon Dioxide as CO_2 4 "

pH 7.6 Soap Hardness as $CaCO_3$ 170 PPM

Odor 0 Turbidity 10

REMARKS

WATER ANALYSIS

By N. H. Kellam

Date 2-21-42

Sample from Well at amphibian Base
116' Deep 36 hrs Pumping

Total Solids _____ PPM Dissolved Solids _____ PPM

Suspended Solids _____ PPM Volatile Solids _____ PPM

Phenol. Alk. as $CaCo_3$ 0 PPM Silica as Sio_2 _____ PPM

Total Alk. " " 120 " Ferrous Iron as Fe _____ "

Carbonates " " 0 " Total Iron as Fe _____ "

Bicarbonates " " 120 " Aluminum as Al. _____ "

Chlorides as Cl. 50 " Calcium as Ca. _____ "

Sulphates as SO_4 _____ " Magnesium as Mg. _____ "

Nitrites as No_2 0 " Sodium as Na. _____ "

Carbon Dioxide as CO_2 0 "

pH 7.8 Soap Hardness as $CaCO_3$ 160 PPM

Odor 0 Turbidity 15

REMARKS _____

WATER ANALYSIS

By _____

Date _____

Sample from _____

_____

_____

_____

Total Solids _____ PPM Dissolved Solids _____ PPM

Suspended Solids _____ PPM Volatile Solids _____ PPM

Phenol. Alk. as $CaCO_3$ _____ PPM Silica as SiO_2 _____ PPM

Total Alk. " " _____ " Ferrous Iron as Fe _____ "

Carbonates " " _____ " Total Iron as Fe _____ "

Bicarbonates " " _____ " Aluminum as Al. _____ "

Chlorides as Cl. _____ " Calcium as Ca. _____ "

Sulphates as SO_4 _____ " Magnesium as Mg. _____ "

Nitrates as NO_3 _____ " Sodium as Na. _____ "

Carbon Dioxide as CO_2 _____

pH _____ Total Hardness as $CaCO_3$ _____ PPM

Color _____ Turbidity _____

REMARKS _____

_____

_____

_____

_____

WATER ANALYSIS

By N. H. Kellam

Date 2 - 20 - 24

Sample from Well at amphibian Base
8 hrs pumping

Total Solids _____ PPM Dissolved Solids _____ PPM

Suspended Solids _____ PPM Volatile Solids _____ PPM

Phenol. Alk. as $CaCo_3$ 0 PPM Silica as Sio_2 _____ PPM

Total Alk. " " 124 " Ferrous Iron as Fe _____ "

Carbonates " " 0 " Total Iron as Fe _____ "

Bicarbonates " " 124 " Aluminum as Al. _____ "

Chlorides as Cl. 48 " Calcium as Ca. _____ "

Sulphates as SO_4 _____ " Magnesium as Mg. _____ "

Nitrites as No_2 _____ " Sodium as Na. _____ "

Carbon Dioxide as CO_2 _____ "

pH 7.6 Soap Hardness as $CaCO_3$ 170 PPM

Odor Slight Turbidity 20

REMARKS

Cl. increasing

WATER ANALYSIS

By _____

Date _____

Sample from _____

_____

_____

Total Solids _____ PPM Dissolved Solids _____ PPM

Suspended Solids _____ PPM Volatile Solids _____ PPM

Phenol. Alk. as $CaCO_3$ _____ PPM Silica as SiO_2 _____ PPM

Total Alk. " " _____ " Ferrous Iron as Fe _____ "

Carbonates " " _____ " Total Iron as Fe _____ "

Bicarbonates " " _____ " Aluminum as Al. _____ "

Chlorides as Cl. _____ " Calcium as Ca. _____ "

Sulphates as SO_4 _____ " Magnesium as Mg. _____ "

Nitrates as NO_3 _____ " Sodium as Na. _____ "

Carbon Dioxide as CO_2 _____ "

pH _____ Deep Hardness as $CaCO_3$ _____ PPM

Odor _____ Turbidity _____

REMARKS _____

_____

_____

_____

_____

WATER ANALYSIS

By N. H. Kellam

Date 2-16-42

Sample from Test Well at Amphibian Base
100 ft Deep 24 hr pumping

Total Solids _____ PPM Dissolved Solids _____ PPM

Suspended Solids _____ PPM Volatile Solids _____ PPM

Phenol. Alk. as $CaCo_3$ 0 PPM Silica as Sio_2 _____ PPM

Total Alk. " " 120 " Ferrous Iron as Fe _____ "

Carbonates " " 0 " Total Iron as Fe _____ "

Bicarbonates " " 120 " Aluminum as Al. _____ "

Chlorides as Cl. 37 " Calcium as Ca. _____ "

Sulphates as SO_4 _____ " Magnesium as Mg. _____ "

Nitrites as No_2 0 " Sodium as Na. _____ "

Carbon Dioxide as CO_2 _____ "

pH 7.4 Soap Hardness as $CaCO_3$ 160 PPM

Odor Slight Turbidity 10

REMARKS _____

WATER ANALYSIS

By N. H. Kellam

Date 2-14-42

Sample from Test Well at Amphibian Base

100 ft Deep Pumped 12 hrs

Total Solids	PPM	Dissolved Solids	PPM
Suspended Solids	PPM	Volatile Solids	PPM
Phenol. Alk. as $CaCo_3$	0 PPM	Silica as Sio_2	PPM
Total Alk. " "	120 "	Ferrous Iron as Fe	"
Carbonates " "	0 "	Total Iron as Fe	"
Bicarbonates " "	120 "	Aluminum as Al.	"
Chlorides as Cl.	35 "	Calcium as Ca.	"
Sulphates as SO_4	"	Magnesium as Mg.	"
Nitrites as No_2	0 "	Sodium as Na.	"
Carbon Dioxide as CO_2	0 "		

pH 7.4 Soap Hardness as $CaCO_3$ 160 PPM

Odor Slight Turbidity 10

REMARKS