

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

West Point 15' quad
15X, 6.8S, 2.5E

call Col. Perminin
Ext. #217
water analysis
5-2-78

P 776
call Mr. Erley
see back of
P 777 for location
sketch

RECORD OF WELL

1. Location: State New York County Putnam
Nearest P. O. _____ Direction from P. O. _____
Distance from P. O. _____ miles; _____ 1/4 sec. _____, T. _____, R. _____

If in city, give street and number _____

U. S. Army, West Point Phone Cold Spring
5-3721

2. Owner: Employee, Andrew Zenn Address Constitution Island, West Point, N. Y.
Driller: Andrew Congelari Address Newburgh, N. Y. RD #3

3. Situation: Is well on upland, in valley, or on hillside? valley

4. Elevation of top of well: 20 ft. above the level of m. s. level.
(Above or below) (Sea, depot, lake, or stream)

5. Type of well: drilled; kind of drilling rig used st
(Dug, driven, bored, or drilled) (Solid tool, jetting, rotary, etc.)

6. Depth of well: 80-125 ft.; year in which well was finished Nov. Dec. 1952

Does well enter rock? Yes; if so, at what depth? 8 ft.; kind of rock granite

7. Diameter: At top 6 1/2 inches; at bottom 6 inches.

8. Principal water bed: granite Fordham quartz (geologic map)
Depth to principal water bed 70-80' ft.; thickness of bed _____ ft.
(Gravel, sand, clay, or rock. If rock, state kind)

If other water supplies were found, give depth to each see over truckle of water at 20'

9. Casings: Kind st; size 6"; length 9 ft.; between depths of 0 and 9 ft.

Kind _____; size _____; length _____ ft.; between depths of _____ and _____ ft.

Kind _____; size _____; length _____ ft.; between depths of _____ and _____ ft.

Packers (if any): Depth at which packers were used none; kind _____

Screen or Strainer: Was well finished with screen? no; kind of screen _____;
length of screen _____ ft.; diameter _____ inches; size of openings _____

10. Head: Does well at present overflow without pumping? no; did it overflow when new? no;

if flowing, give pressure _____ lb. per sq. inch; or height water will rise in a pipe _____ ft. above surface;

original pressure or head _____; if not flowing, give water level in well 17 1/2 ft. below surface.

11. Pump: Is the well pumped? yes; kind of pump DW jet 20-driller;

size or capacity of pump _____; kind of power elec.

12. Yield: Natural flow at present (if any) _____ gallons per minute; original flow _____ gallons per minute;

well has been pumped at 30-33 gallons per minute better test for 1 hr hours;

quantity of water ordinarily obtained from well _____ gallons per day.

13. Use: For what purpose is the water used? Dom - 1 family (of employee) 5 people

14. Quality of the water: soft; is there an analysis? yes - get it at West Point.
(Hard or soft, fresh or salty, etc.)

15. Cost of well, not including pump: _____ Temperature of water _____ ° F.

Name of person filling blank J. Grossman from Andrew Zenn
Date 7/19/53 Address V. S. Seal, Lemp, Albany + driller's data

John's LOG OF WELL

KIND OF ROCK OR OTHER MATERIAL (Give color and tell whether hard or soft)	DEPTH, IN FEET		THICKNESS, IN FEET	REMARKS (Especially information as to water found)
	From—	To—		
<i>Topsoil</i>	<i>0</i>	<i>1/2</i>	<i>1/2</i>	
<i>Made land</i>	<i>1/2</i>	<i>2</i>	<i>1 1/2</i>	
<i>Gray sand</i>	<i>2</i>	<i>8</i>	<i>6</i>	
<i>Gray granite</i>	<i>8</i>	<i>80</i>	<i>72</i>	<i>Trickle of water at 20'</i> <i>Main water at 70'-80'</i>
<i>Driller's abbreviated log</i>				
<i>Sand</i>	<i>0</i>	<i>7</i>	<i>7</i>	
<i>Mixed rough granite</i>	<i>7</i>	<i>25</i>	<i>18</i>	
<i>Gray granite</i>	<i>25</i>	<i>52</i>	<i>27</i>	
<i>Salt and pepper granite</i>	<i>52</i>	<i>125</i>	<i>73</i>	<i>Water veins at 82', 110',</i> <i>and 117 ft.</i>
<i>Driller's note: at 20 gpm, level held at 50 ft.</i>				

UNITED STATES MILITARY ACADEMY
West Point, New York
FILTRATION PLANT

P 776

----- REPORT OF SPECIAL TEST -----

Date 25 Sept. 1953

TO THE POST ENGINEER

Test made for: Post Engineer

Sample from: Kitchen Tap of Quarters #1182, Constitution Island

Water used for: All purposes

Collected by: Mr. Odell
Mr. Frueh

Analyzed by: Mr. Spellman
Mr. Peacock

Collected
Date: 9 June 1953
Hour: 0840

Physical and Chemical Analysis:

Temperature, degrees F., - - - - -	60
Turbidity, P.P.M., - - - - -	5
Color, P.P.M., - - - - -	17
Alkalinity, P.P.M., methyl orange, - - -	47.0
Phenolphthalein, - - -	0
pH reading, - - - - -	6.5
Carbon Dioxide, free, P.P.M., - - - - -	18.0
Odor, cold, - - - - -	0
hot, - - - - -	0
Hardness, as CaCO ₃ , P.P.M., - - - - -	102.0
Free Chlorine, P.P.M., - - - - -	0
Iron, total, P.P.M., - - - - -	0.30
Dissolved Oxygen, P.P.M., - - - - -	X
Chlorides, P.P.M., - - - - -	X
Fluoride P.P.M. -----	0.58

Note: 6" well, 125' deep, drilled Nov. 1952 by Andrew Congelosi, Union Ave., R. D. #3, Newburgh, N. Y. According to well driller, formation, 7' through sand to rock; 7' to 25' mixed rough granite; 25' to 52', gray granite; 52' to 125', salt and pepper granite, water veins at 82', 110' & 117'. Static level at 20'. At 20 g.p.m. yield, level held at 50'.

Bacteriological Test:

Bacteria per ml. in 24 hours on agar at 37 $\frac{1}{2}$ degrees C. - - - - -	0
B. Coli test, % gas, peptone lactose broth, 48 hrs. at 37 $\frac{1}{2}$ ° C., 10.0 ml. -	Neg.
1.0 ml. -	Neg.

Number after gas percentage is result of confirmatory test per following key:

	1	2	3	4
2% Brilliant Green Bile - - - - -	Negative	Positive	Negative	Positive
Eosine's Methylene Blue Agar - - -	Negative	Negative	Positive	Positive

Remarks: Test indicates that the water is potable.

Copy for:
Post Engineer
The Surgeon
Mr. Fenn
Mr. Grossman, Albany ✓

Respectfully submitted,
Robert H. Eley
Chief Operator