

STATE ENGINEER  
Salem, Oregon

MULT  
1160

# Well Record

STATE WELL NO. 1N/2-2201  
COUNTY MULTNOMAH  
APPLICATION NO. \_\_\_\_\_

OWNER: Parkrose Water Dist.

MAILING ADDRESS: \_\_\_\_\_

LOCATION OF WELL: Owner's No. \_\_\_\_\_

CITY AND STATE: \_\_\_\_\_

..... 1/4 ..... 1/4 Sec. .... T. .... N. S., R. .... E. W., W.M.

Bearing and distance from section or subdivision corner \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_


Altitude at well 210

TYPE OF WELL: Drilled Date Constructed \_\_\_\_\_

Depth drilled 265 Depth cased 265

Section \_\_\_\_\_

CASING RECORD:

12 inch

FINISH:

AQUIFERS:

Gravel, Troutdale formation from 215 to 231

WATER LEVEL:

198 feet below land surface, April, 1952

PUMPING EQUIPMENT: Type Turbine

Capacity \_\_\_\_\_ G.P.M. \_\_\_\_\_ H.P.

WELL TESTS:

Drawdown \_\_\_\_\_ ft. after \_\_\_\_\_ hours \_\_\_\_\_ G.P.M.

Drawdown \_\_\_\_\_ ft. after \_\_\_\_\_ hours \_\_\_\_\_ G.P.M.

USE OF WATER Public Supply

Temp. \_\_\_\_\_ °F. \_\_\_\_\_, 19\_\_\_\_

SOURCE OF INFORMATION USGS

DRILLER or DIGGER \_\_\_\_\_

ADDITIONAL DATA:

Log X Water Level Measurements \_\_\_\_\_ Chemical Analysis X Aquifer Test \_\_\_\_\_

REMARKS:

Standby supply for Parkrose; pumped 1,000 gpm, drawdown 9 inches after 1 hour. Perforated 217-247 feet.

Multnomah

11/2-22Q(1)

Oregon State Board of Health  
SANITARY ENGINEERING LABORATORY

REPORT OF MINERAL ANALYSIS OF WATER

Location of source Parkrose Description of source well

Analysis by WEP Date 5/23/55 Collected by JLA Date 5/23/55

RESULTS

203

	Parts per million
Turbidity	1
Color: Apparent	True 2
Odor: Hot	Cold
Total Solids	195
Loss on Ignition	62
Silicon (SiO <sub>2</sub> )	45
Chloride (Cl)	7.5
Sulfate (SO <sub>4</sub> )	8.5
Calcium (Ca)	19
Magnesium (Mg)	8.6
Aluminum (Al)	0
Orthophosphates (PO <sub>4</sub> )	0.3
Metaphosphates (PO <sub>3</sub> ) <sub>6</sub>	
Alkalinity (as CaCO <sub>3</sub> ): Carbonate	0
Bicarbonate	47
Hardness (as CaCO <sub>3</sub> )	53
Sodium and Potassium (as Na)	8
Iron (Fe)	.10
Manganese (Mn)	0
Fluoride (F)	0
Carbon Dioxide (CO <sub>2</sub> )	7.5
pH	7.1
Remarks	Potassium 2

STATE ENGINEER  
Salem, Oregon

State Well No. LN/2-22Q1

County Multnomah

Application No. ....

### Chemical Analysis

OWNER Parkrose Water District OWNER'S NO. 1

ANALYST Oregon State Board of Health Address .....

Date of Collection 3/9/55

Point of Collection .....

	P.P.M.	E.P.M.
Silica (SiO <sub>2</sub> )	45.	
Iron (Fe) Total	.10	
Manganese (Mn)	0.0	
Calcium (Ca)	19.	
Magnesium (Mg)	8.6	
Sodium (Na)	8.	
Potassium (K)	2.	
Bicarbonate (HCO <sub>3</sub> )		
Carbonate (CO <sub>3</sub> )		
Sulfate (SO <sub>4</sub> )	8.5	
Chloride (Cl)	7.	
Fluoride (F)	0.	
Nitrate (NO <sub>3</sub> )		
Boron (B)		
Dissolved Solids	195.	
Hardness as CaCO <sub>3</sub>	135.	
Specific Conductance (Micromhos at 25°C)		
pH	7.1	
Percent Sodium		
Sodium Absorption Ratio (S.A.R.)		
CLASS		



11/2-22  
M.L.T. memo h.

GROUND WATER BRANCH  
Box 3418 - 623 Post Office Building  
Portland 3, Oregon

November 30, 1950

RECEIVED

Mr. Henry Moretty, Superintendent  
Parkrose Water District  
10404 N. E. Sandy Boulevard  
Portland 16, Oregon

Dear Mr. Moretty:

Reference is made to your verbal request for data we might have available in this office bearing on the ground water situation in the SW $\frac{1}{4}$  sec. 22, T. 1 N., R. 2 E., which is near Clarnie Station and an half mile northeast of Rocky Butte.

That locality and the terraces and slopes of that part of northeast Portland (except Rocky Butte) are underlain by sand, gravel, and silt beds known as the Portland gravels. Those deposits extend downward to about sea level. Below those "Portland gravel" deposits is a series of older gravel-sand- and claybeds known as the Troutdale formation that continues downward for several hundred feet in thickness. You doubtlessly have observed some of the gravel beds of the Troutdale where it forms the bluff along the Sandy River for several miles above the bridge at Troutdale.

In a well drilled at about 200 feet altitude near Clarnie Station you could expect to penetrate those strata, Portland gravels, to about sea level, and Troutdale formation below. The top of the saturated zone, known as the water table, would be encountered at a depth of about 175 feet -- near the level of the Columbia River -- at about 25 feet altitude. Some perched layers of water above the regional water table are present in those districts but they are commonly low in yield and not worth developing in wells needing large yields.

The coarse sand and gravel members of the Portland gravel deposits below the water table level are water-bearing. The gravel members of the underlying Troutdale formation are also water-bearing, but the water yields from them commonly are not so high as are those from the Portland gravels.

Both the Portland gravels and the Troutdale formation need to be cased. The clay and sandstone members of the Troutdale formation are deceptively firm, but the failure to extend the casing down into them has in the past been detrimental to the proper finishing of such wells as the U. S. Engineer Laboratory well near Troutdale. Water also can be extracted from the sand members of those deposits by the setting of proper well screens.

Other things being equal, I, personally would locate a well in that district as far as possible from Rocky Butte, which is a high knob of the Troutdale formation (plus later igneous intrusive rock) in order to place my well where the largest possible thickness of the more permeable Portland gravels could be penetrated below water table level before encountering the Troutdale formation.

We have a few partial analyses indicating that the quality of the water in the gravels is good though the water is moderately hard.

Enclosed is a copy of the geologic map of the Portland area put out by the State Department of Geology and Mineral Industries. It shows in plan and cross section some of these features of the geologic structure which I have sought to explain above.

This office or our cooperator, the State Engineer, would be glad to receive records of drilling and water development you undertake.

Sincerely yours,

R. C. Newcomb  
District Geologist

RCN:rls  
Enclosure

cc: Mr. Stricklin