

WATER WELL REPORT
STATE OF OREGON

MULTI-MULTI RECEIVED
JUL 12 1983
001268 WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 1N/3E-20ad
State Permit No.

(1) OWNER:

Name City of Portland-Bureau of Water Wks
Address 1120 S.W. 5th Avenue
City Portland State Or 97201

(2) TYPE OF WORK (check):

New Well Deepening Reconditioning Abandon
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rev
Rotary Air Driven
Rotary Mud Dug
 Bored

(4) PROPOSED USE (check):

Domestic Industrial Municipal
Irrigation Test Well Other
Thermal: Withdrawal ReInjection

(5) CASING INSTALLED:

Steel Plastic
Threaded Welded

" Diam. from See attached sheet ft. to
" Diam. from ft. to ft. Gauge

LINER INSTALLED:

" Diam. from ft. to ft. Gauge

(6) PERFORATIONS:

Perforated? Yes No

Type of perforator used

Size of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(7) SCREENS:

Well screen installed? Yes No

Manufacturer's Name UOP Johnson

Type 12" PS Stainless steel Model No.

Diam. See attached sheet ft. to ft.

Diam. Slot Size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? Yes No If yes, by whom? SEI
2500 gal./min. with 175 ft. drawdown after 48 hrs.

Air test gal./min. with drill stem at ft. hrs.

Bailer test gal./min. with ft. drawdown after hrs.

Artesian flow g.p.m.

Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes No

Well seal—Material used Type III cement grout

Well sealed from land surface to ft.

Diameter of well bore to bottom of seal in. see attached sheet

Diameter of well bore below seal in. sheet

Number of sacks of cement used in well seal sacks

How was cement grout placed? pumped through grout pipe from bottom of seal zone upward

Was pump installed? NO Type HP Depth ft.

Was a drive shoe used? Yes No Plugs Size: location ft.

Did any strata contain unusable water? Yes No

Type of Water? depth of strata

Method of sealing strata off

Was well gravel packed? Yes No Size of gravel:

Gravel placed from ft. to see attached sheet

(10) LOCATION OF WELL:

County Multnomah Driller's well number 8304
SE 1/4 NE 1/4 Section 20 T. 1N R. 3E W.M.
Tax Lot # Lot Blk Subdivision

Address at well location:

(11) WATER LEVEL: Completed well.

Depth at which water was first found 13 ft.
Static level 3 ft. below land surface. Date 6-1-83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing

Depth drilled 361 ft. Depth of completed well 358 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

Table with columns: MATERIAL, From, To, SWL. Entry: See Sheet Attached

Work started 10-19 19 82 Completed 6-13 19 83
Date well drilling machine moved off of well 6-7 19 83

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] Stephen Schneider Date 7-7 19 83
(Drilling Machine Operator)

Drilling Machine Operator's License No. 1090

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name Schneider Equipment, Inc.
Address 21881 River Rd NE, St. Paul, Or 97137
(Person, firm or corporation) (Type or print)

[Signed] Stephen Schneider Date 7-7 19 83
(Water Well Contractor)
Contractor's License No. 649

MULT-1268

City of Portland Bureau of Water Works

No. 8304

(12) WELL LOG:

<u>Material</u>	<u>From</u>	<u>To</u>
Top soil, brown	0	2
Clay, brown	2	12
Boulders	12	14
Gravel & grey clay conglomerate	14	20
Gravel & cobbles w/ occasional clay & sand	20	52
Sandstone & gravel w/ brown clay	52	54
Boulder & gravel w/ brown clay	54	55
Gravel & cobbles w/ brown clay	55	76
Clay, blue green, fine sandy	76	88
Gravel, pea w/ coarse grey sand	88	90
Clay, blue green w/ some sand	90	100
Clay, brown	100	104
Silt & very fine sand, brown	104	123
Gravel, 2" minus	123	134
Gravel & sand, 3" minus, cemented, hard	134	140
Sand & gravel, 1" minus, semi cemented	140	143
Sand, brown, lightly cemented w/ grey siltstone layers	143	148
Gravel, 4" minus, semi cemented w/ occasional brown-green sandstone	148	173
Sand & gravel, 3" minus, cemented, black & green	173	188
Gravel & cobbles, cemented, black w/ green sandstone binder, hard	188	196
Gravel, 3" minus, semi cemented w/ green sandstone	196	205
Sand, green, fine-medium	205	211
Sand, green, fine-medium w/2" minus gravel	211	218
Gravel, semi cemented, 4" minus	218	222
Sandstone, black, coarse, w/ occasional gravel	222	234
Gravel, 2" minus & sand, coarse, semi cemented	234	243
Sandstone, black, med grain	243	244
Sand, coarse w/ trace of clay	244	246
Gravel & sand, coarse, cemented w/ occasional grey siltstone	246	258
Gravel & sand, coarse, cemented w/ occasional greenish grey claystone	258	265
Gravel, 3" minus, cemented	265	277
Gravel, 3" minus & sand, green, med-fine; loosely cemented	277	283

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City of Portland-Bureau of Water Works

No. 8304

(12) WELL LOG: (Cont'd)

<u>Material</u>	<u>From</u>	<u>To</u>
Gravel, 4" minus w/ some sand, green, med-fine; cemented	283	289
Gravel, 6" minus, cemented	289	294
Sand, medium, grey-green, loose w/ some 2" minus gravel	294	305
Sand, black, coarse w/ some gravel & cementation	305	308
Sand, black, & gravel, some cementation	308	311
Sand, black, med-fine	311	314
Sand, black, med-coarse w/ some pea gravel & cementation	314	317
Sand, black, med, w/ some gravel, loosely cemented	317	320
Sand, black, fine-med	320	321
Sand, black, & gravel, cemented	321	327
Sand, black, med-coarse w/ 3" minus gravel & some cementation	327	333
Gravel & sand, black, coarse, cemented	333	337
Gravel & sand, black, coarse w/ trace of grey clay	337	339
Clay, grey	339	342
Clay, grey w/ fine grey sand	342	344
Sand & sandstone, grey	344	345
Sand, med-coarse, grey	345	352
Sand, coarse, grey	352	353
Sand, coarse, grey w/ some pea gravel	353	355
Gravel, 2" minus w/ coarse sand & some claystone	355	356
Clay, grey, firm	356	361

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City of Portland-Bureau of Water Works

No. 8304

(5) CASING INSTALLED and (7) SCREENS:

22" Diam. from +1.0 ft. to 120.0 ft. Gauge .375

18" Diam. from 10.0 ft. to 260.0 ft. Gauge .375

16" Diam. from 360.0 ft. to 361.6 ft. Gauge .375

12" Diam., .375 wall, stainless steel pipe installed with screen sections as noted below:

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SALEM, OREGON

Screen Sections

<u>Depth Below Ground</u>	<u>Section Length</u>	<u>Description</u>
239.0-249.5	10.5	SS pipe w/ packers
249.5-250.5	1.0	30 slot screen
250.5-260.0	9.5	SS pipe
260.0-339.0	79.0	50 slot screen
339.0-344.0	5.0	SS pipe
344.0-352.0	8.0	33 slot screen
352.0-360.0	8.0	SS pipe w/ plate & bail bottom

121.0 O.A.L.

There is a special slip packer assembly located on top of the screen assembly to seal between the screen assembly and the 18" casing.

An 8" valve assembly was installed on 6/13/83 at 5 ft. below ground after the rig was moved off the well.

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260.0-339.0	79.0	50 slot screen
339.0-344.0	5.0	SS pipe
344.0-352.0	8.0	33 slot screen
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Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-3741

OR
1-800-452-7813
(message line)

October 20, 1982

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JUL 12 1983
WATER RESOURCES DEPT.
SALEM, OREGON

Stephen Schneider
Schneider Equipment, Incorporated
21881 River Road, NE
St. Paul, OR 97137

Dear Steve:

This letter will serve as approval of your request for special standards for the City of Portland production Well 14. There will be a 20-foot seal in the confining stratum overlying each confined water bearing zone. Either a neoprene/concrete seal or watertight 3/8-inch welded steel ring will be used between the inner and outer casings.

Please let me know if we can be of further help.

Sincerely,

DANIEL KENNEDY
Administrator
Administrative Services Division

DK:wpc

cc: City of Portland

3134B

WELL DRILLING
IRRIGATION
CONTROL SYSTEMS

MULT 1268

SCHNEIDER EQUIPMENT, INC.

PUMPS
ENGINEERED WATER SYSTEMS
SALES AND SERVICE

21881 River Road N.E. St. Paul, Oregon 97137 (503) 633-2666

October 19, 1982

Water Resources Department
555 - 13th Street NE
Salem, Oregon 97310

RE: City of Portland Production Well No. 14 - Phase IV Contract;
Request for Special Standards

Attention: Mr. Frederick Lissner

Dear Fred,

We are about to begin construction on the above referenced well and request a special standard be approved as outlined in the attached correspondence. The well is to be located in Multnomah county in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 20, T1N, R3E. In addition to the neoprene/concrete seal proposed, we would also like to have the option to install a 3/8 inch thick steel plate ring between the inner and outer casings. This plate would be welded in place watertight at the top of the inner casing. We would prefer to use this latter method because we feel it is more secure and reliable; however, because of unknown installation problems that may be encountered (e.g. flowing well), it may be necessary to use the neoprene/concrete seal.

Your prompt attention to this request will be greatly appreciated. If there are any questions, please do not hesitate to call.

Sincerely yours,

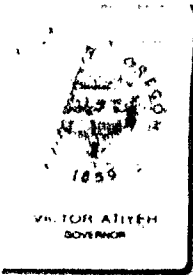
Stephen Schneider
Stephen G. Schneider
General Manager

SJS/rs

Encl:

WRD letter to City of Portland dated 6/10/82
City of Portland letters to WRD dated 5/7/82 and 4/14/82

CC: City of Portland, Bureau of Water Works; 1800 SW 6th, Portland,
Or. 97201



Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-2907

OR

1-800-452-7813

(message line)

*Production
Wells
OK IV*

June 10, 1982

William Hoffstetter
Bureau of Water Works
1800 Southwest 6th
Portland, OR 97392

Dear Bill:

I apologize for the delay in responding to your request for special standards dated April 14, 1982, and updated May 7, 1982.

As you know, special standards must be issued to the drilling contractor. However, I will give tentative approval to the design outlined so that bids may be obtained. It will then be necessary for the contractor to request the identical special standards specifying the locations of the well(s) where these techniques are to be used.

To reiterate: 1) a 20-foot seal will be approved in the confining stratum overlying each confined water bearing zone; and 2) the neoprene/concrete seal between the inner and outer casings as shown in the drawing included with your May 7, 1982 request will be approved.

If I can be of further assistance, please call. I'll try to be more prompt!

Sincerely,

FREDERICK G. LISSNER
Hydrogeologist

FGL:wpc
1151B



CITY OF MULT 1268

PORTLAND, OREGON

BUREAU OF WATER WORKS

Francis J. Ivancic, Mayor
Carl Goebel, Administrator
1800 S.W. 6th
Portland, Oregon 97201
(503) 248-4178

Production Wells
Ph. II

May 7, 1982

Mr. Fred Lissner
Oregon Water Resources Dept.
555 13th Street N.E.
Salem, Oregon 97310

Dear Mr. Lissner:

Enclosed is a drawing of a typical water tight seal used between the 18" and 22" casings on Type 1, Phase II production wells. We anticipate the use of a similar seal on the Type 1, Phase IV production wells.

Sincerely,
Carl Goebel, Administrator

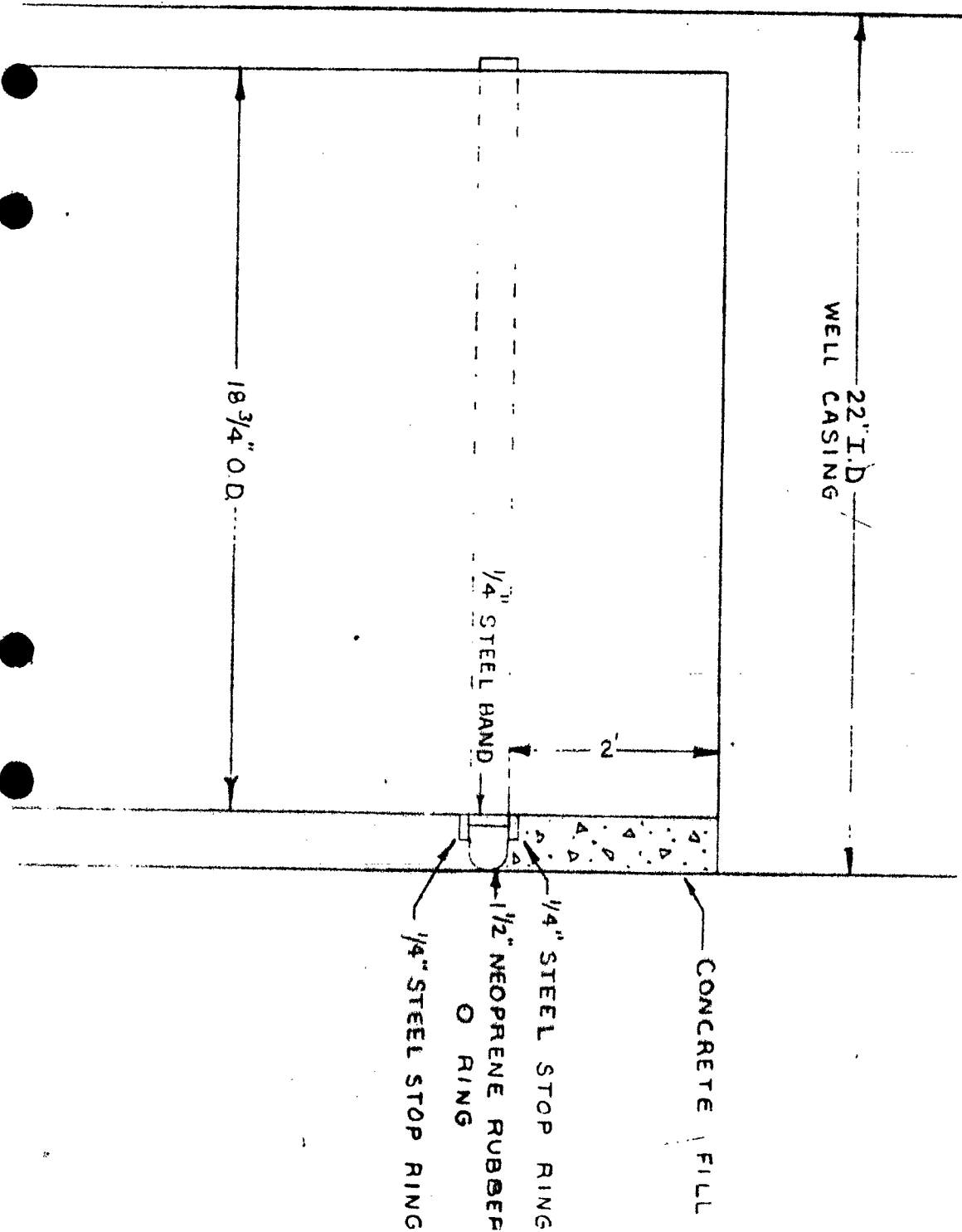
Bill Hoffstetter
Bill Hoffstetter
Engineer III

BH:rjm

Enclosure

cc: P. Norseth
B. Willis

TYPICAL WATER TIGHT SEAL
USED BETWEEN 16 & 22" CASINGS
ON PHASE II PRODUCTION WELLS



SCALE
HORIZ. 1" = 4'
VERT. AS SHOWN