

Attachment A

Well Logs for Existing Authorized Points of Appropriation for Permit G-10019

Permit Amendment for Avion Water Company Inc.
Permit G-10019

T 10828

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MAR 18 2009

WATER RESOURCES DEPT
SALEM, OREGON

NOTICE TO WATER WELL CONTRACTOR
The original and first copy
of this report are to be
filed with the

RECEIVED DESC 4006
JUN 27 1969

WATER WELL REPORT

State Well No. 15/13-36
State Permit No.

STATE ENGINEER, SALEM, OREGON (Please type or print)
within 30 days from the date of well completion. SALEM, OREGON (Do not write above this line)

CK/IC. Lester

(1) OWNER:
Name PAUL RAMSEY
Address Bend Oregon 57 Grand St.

(2) TYPE OF WORK (check):
New Well Deepening Reconditioning Abandon
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL: (4) PROPOSED USE (check):
Rotary Driven Domestic Industrial Municipal
Cable Jetted Irrigation Test Well Other
Dug Bored

CASING INSTALLED: Threaded Welded
8" Diam. from 0 ft. to 18 ft. Gage 2.50
6" Diam. from 0 ft. to 400 ft. Gage 2.12

PERFORATIONS: Perforated? Yes No.
Type of perforator used Factory
Size of perforations 3/16 in. by 2" in.
120 perforations from _____ ft. to _____ ft.
379 perforations from _____ ft. to 400 ft.

(7) SCREENS: Well screen installed? Yes No
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ Set from _____ ft. to _____ ft.
Diam. _____ Slot size _____ Set from _____ ft. to _____ ft.

(8) WATER LEVEL: Completed well.
Static level 381 ft. below land surface Date 6-2-69
Pneumatic pressure _____ lbs. per square inch Date _____

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes No If yes, by whom?
Flow: _____ gal./min. with _____ ft. drawdown after _____ hrs.
Ball test 15 gal./min. with 0 ft. drawdown after 1 hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water 54° Was a chemical analysis made? Yes No

(10) CONSTRUCTION:
Well seal—Material used Cement & Rendite
Depth of seal 18 ft.
Diameter of well bore to bottom of seal 10 in.
Were any loose strata cemented off? Yes No Depth _____
Was a drive shoe used? Yes No
Did any strata contain unusable water? Yes No
Type of water? _____ depth of strata _____
Method of sealing strata off _____ 10828
Was well gravel packed? Yes No Size of gravel: 1/4 min. US
Gravel placed from 250 350 ft. to 460 ft.

(11) LOCATION OF WELL:
County DESC Driller's well number _____
Section 36 T. 15 S. R. 13 W.M.
Bearing and distance from section or subdivision corner _____

(12) WELL LOG: Diameter of well below casing to bottom
Depth drilled 400 ft. Depth of completed well 400 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 as drilling proceeds. Note drilling rates.

MATERIAL	From	To	SWL
<u>Overburden</u>	<u>0</u>	<u>6</u>	
<u>lava rock</u>	<u>6</u>	<u>96</u>	
<u>Boulder clay</u>	<u>96</u>	<u>230</u>	
<u>Brn. Sandstone</u>	<u>230</u>	<u>381</u>	
<u>water bearing Black sand</u>	<u>381</u>	<u>460</u>	<u>381</u>

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WATER RESOURCES DEPT
SALEM, OREGON

Work started 5-22 1969 Completed 6-2 1969
Date well drilling machine moved off of well 6-2 1969

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] Forest H. Hall Date 6-2, 1969
(Drilling Machine Operator)

Drilling Machine Operator's License No. 558

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 H.H. Construction Co. (Type or print)
Address P.O. Box 51 Raymond
[Signed] Forest H. Hall (Water Well Contractor)
Contractor's License No. 488 Date 6-2, 1969

NOTICE TO WATER WELL CONTRACTOR
The original and first copy
of this report are to be
filed with the

DESC 53381
WATER WELL REPORT

well # 2 15s/12e/36c

STATE ENGINEER, SALEM, OREGON 97310
within 30 days from the date
of well completion.

STATE OF OREGON

(Please type or print)

State Well No. _____

State Permit No. _____

(Do not write above this line)

Chaparral

151236c 101? *not find original well log*

(1) OWNER:

Name Avon Water Co.
Address Chaparral St 2 Redmond, Ore

(2) TYPE OF WORK (check):

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

(3) TYPE OF WELL:

Rotary Driven
Cable Jatted
Dug Bored

(4) PROPOSED USE (check):

Domestic Industrial Municipal
Irrigation Test Well Other

(5) CASING INSTALLED:

Threaded Welded
_____ " Diam. from _____ ft. to _____ ft. Gage _____
_____ " Diam. from _____ ft. to _____ ft. Gage _____
_____ " Diam. from _____ ft. to _____ ft. Gage _____

(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 _____
Type _____ Model No. _____
Diam. _____ Slot size _____ Set from _____ 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?
Yield: gal./min. with ft. drawdown after 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:

Well seal—Material used Not drilled
Well sealed from land surface to _____ ft.
Diameter of well bore to bottom of seal _____ in.
Diameter of well bore below seal _____ in.
Number of sacks of cement used in well seal _____ sacks
Number of sacks of bentonite used in well seal _____ sacks
Brand name of bentonite _____
Number of pounds of bentonite per 100 gallons of water _____ lbs./100 gals.
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 _____ ft.

(10) LOCATION OF WELL:

County _____ Driller's well number _____
_____ 1/4 Section T. R. W.M. _____
Bearing and distance from section or subdivision corner _____

(11) WATER LEVEL: Completed well.

Depth at which water was first found 385 ft.
Static level 385 ft. below land surface. Date Aug 20
Artesian pressure lbs. per square inch. Date _____

(12) WELL LOG:

Diameter of well below casing 6"
Depth drilled 425 ft. Depth of completed well 423 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.

MATERIAL	From	To	SWL
<u>Basin Sandstone</u>	<u>400</u>	<u>425</u>	<u>355</u>

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AUG 07 2000

WATER RESOURCES DEPT
SALEM, OREGON

Work started Aug 21 1973 Completed Aug 30 1973
Date well drilling machine moved off of well Aug 30 1973

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] James Appel Date Aug 20, 1973
(Drilling Machine Operator)

Drilling Machine Operator's License No. 558

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 Al H. Drilling Co.
(Person, firm or corporation) (Type or print)

Address P.O. Box 51 Redmond

[Signed] James Appel
(Water Well Contractor)

Contractor's License No. 498 Date Aug 30, 1973

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WATER RESOURCES DEPT
SALEM, OREGON

T 10828

WATER WELL REPORT
STATE OF OREGON

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JUN 3 1981

WATER RESOURCES DEPT
SALEM, OREGON

start card 4-28, 4-30

State Well No. 155/12E-36

State Permit No.

DESC
3673

(1) OWNER:

Name Avion Water Company
Address 60813 Parrell Road
City Bend State Orc. 97701

(2) TYPE OF WORK (check):

New Well Deepening Reconditioning Abandon

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air Driven Domestic Industrial Municipal
Rotary Mud Dug Irrigation Test Well Other
Or Bored Thermal: Withdrawal Reinjection

(4) PROPOSED USE (check):

(5) CASING INSTALLED:

Steel Plastic
Threaded Welded

10.5/8" Diam. from +2.0 ft. to 29.0 ft. Gauge 2.50

LINER INSTALLED:

(6) PERFORATIONS:

Perforated? Yes No

Type of perforator used

Size of perforations in. by in.

(7) SCREENS:

Well screen installed? Yes No

Manufacturer's Name

Type Model No.

Diam. Slot Size Set from 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?

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

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

Bailer test 14 gal./min. with 0 ft. drawdown after 2 hrs.

Artesian flow g.p.m.

Temperature of water 52* Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes No

Well seal—Material used Cement grout

Well sealed from land surface to 26 ft.

Diameter of well bore to bottom of seal 16 in.

Diameter of well bore below seal 10 in.

Number of sacks of cement used in well seal 25 sacks

How was cement grout placed? Pressure Grouted

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: ft.

Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County Deschutes Driller's well number
W Section 36 T. 15S R. 12E W.M.
Tax Lot # Lot 21 Blk 3 Subdivision Chapparel
Address at well location: Estates-1
1st Addition

(11) WATER LEVEL: Completed well.

Depth at which water was first found 370 ft.

Static level 360 ft. below land surface. Date 5-22-81

Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing 10"

Depth drilled 410 ft. Depth of completed well 410 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.

MATERIAL	From	To	SWL
Top Soil	0	6	
Mild Lava	6	25	
Red Sandstone	25	60	
Grey Basalt	60	85	
Brown Sandstone & Gravel	85	125	
Tan Pumice & Gravel	125	185	
Grey Basalt	185	195	
Tan Conglomerate	195	265	
Tan Sandstone	265	290	
Black Sand	290	375	
Tan Sandstone & Sm. Gravel	375	410	360

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WATER RESOURCES DEPT
SALEM, OREGON

Work started 4-30 19 81 Completed 5-22 19 81

Date well drilling machine moved off of wall 5-22 19 81

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) Tom Hall Date 5-22, 19 81

(Drilling Machine Operator)

Drilling Machine Operator's License No. 558

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 Orvail Buckner Well Drilling, Inc.

Address 1425 N.E. Nehalem Way, Redmond, Ore. 97756

(Signed) Orvail Buckner

(Water Well Contractor)

Contractor's License No. 608 Date 5-23, 19 81

NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the

WATER RESOURCES DEPARTMENT,

SALEM, OREGON 97310
within 30 days from the date of well completion.

SP-12858-000

T 10828

Attachment D

**Well Log for Proposed Additional Point of
Appropriation**

Permit Amendment for Avion Water Company Inc.
Permit G-10019

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WATER RESOURCES DEPT
SALEM, OREGON

STATE OF OREGON
Water Supply Well Report

(as required by ORS 537.765)

DESC 56939

DESC

Received Date: 08-26-2005

Well ID Tag # L 77786

Start Card # 174979

Instructions for completing this report are on the last page of this form.

(1) Owner Well Number: _____
Name: _____
AVION WATER CO. INC.
Street: 60813 PARRELL RD
City: BEND State: OR Zip Code: 97702

(2) Type of Work
 New Alter (Recondition) Alter (Repair)
 Deepening Abandonment

(3) Drill Method
 Rotary Air Rotary Mud Cable Auger
Other: _____

(4) Proposed Use
 Domestic Community Industrial Irrigation Injection
 Livestock Thermal Other: _____

(5) Bore Hole Construction
 Special Standards: Depth of completed well: 590.00 ft.
 Explosives Used: Amount: _____ Type: _____

Hole			Seal			Sacks/lbs
Diameter	From	To	Mtrl	From	To	
14.00	0.00	59.00	CE	0.00	59.00	66
10.00	59.00	560.00				
8.00	560.00	590.00				

How was seal placed? C Other: _____
Back fill placed from: _____ Material: _____
Filter pack from: _____ Size: _____

(6) Casing / Liner

Casing/ Liner	Diameter	From	To	Gauge	Mtrl	Weild	Shoe Thrd	Shoe at used
C	10.00	1.00	59.00	.250	S	X		
L	8.00	-10.00	560.00	.188	S	X		

(7) Perforation / Screens

Perforations: _____ Casing/
Mtrl From To Width Height #Slots Dia. t/pSize Lnr Method

Screens: _____
Mtrl From To S Size #Slots Dia. t/pSize Type Gauge

(8) Well Tests (Minimum testing time is one hour)

Type	Yield	Units	Drawdown	Stem at	Duration
P	20.00	G	153.00		1.00

Temperature of Water: 53 F
Was water analysis done? Depth of artesian flow: _____
by whom? _____
Did any strata contain water unsuitable for use? Too Little Salty
 Muddy Odor Colored other: SAND
Depth of strata: 560

(9) Location of Hole by legal description
County: DESC Latitude: 44°13'28" Longitude: 121°14'20"
Township: 15.00 S Range: 12.00 E
Section: 36 NESW Lot: _____ Block: _____
Tax Lot: 101 Subdivision: _____
Street Address of Well (or nearest address):
5599 SW 58TH PLACE REDMOND
MAP, with location identified, must be attached.

(10) Static Water Level
Feet below land surface: 400.0 Date: 08 / 03 / 2005
Artesian Pressure: _____ Date: _____

(11) Water Bearing Zones
Depth at which water was first found: 410.00 ft.

From	To	est Flow	swl
410.00	520.00	300.00	400

(12) Well Log Ground Elevation: 3066 ft.

Material	From	To	swl
SAND	0.00	4.00	
GRAVELS CONGLOMERATE	4.00	22.00	
BLACK SAND	22.00	49.00	
BASALT	49.00	55.00	
LAVA	55.00	85.00	
CINDERS	85.00	97.00	
CONGLOMERATE CLAY BROWN	97.00	180.00	
CONGLOMERATE GRAY	180.00	205.00	
BASALT LAVA LAYERS	205.00	235.00	
BASALT CLAY SEAMS	235.00	280.00	
LAVA GRAY	280.00	305.00	
SANDSTONE GRAY	305.00	370.00	
SAND BROWN CLAY LAYERS	370.00	450.00	400
SAND BLACK	450.00	520.00	400
SANDSTONE LOOSE SAND LAYERS	520.00	560.00	
BASALT CLAY SEAMS	560.00	590.00	400

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WATER RESOURCES DEPT
SALEM, OREGON

Date Started: 07 / 29 / 2005

Date Completed: 08 / 03 / 2005

(unbonded) Water Well Constructor Certification:
I certify that the work I perform on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.
Signed by: THOMAS R PECK WWC #: 758

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
Signed by: JACK ABBAS WWC #: 1720

ABBAS WELL DRILLING CO

Phone: 541-548-2787

T 10828

**STATE OF OREGON
Water Supply Well Report**

(as required by ORS 537.765)

DESC 57037

DESC

Received Date: 10-10-2005

Well ID Tag # L 77786

Start Card # 177241

Instructions for completing this report are on the last page of this form.

(1) Owner Well Number: _____
 Name: _____
AVION WATER CO. INC.
 Street: **60813 PARRELL RD**
 City: **BEND** State: **OR** Zip Code: **97702**

(2) Type of Work
 New Alter (Recondition) Alter (Repair)
 Deepening Abandonment

(3) Drill Method
 Rotary Air Rotary Mud Cable Auger
 Other: _____

(4) Proposed Use
 Domestic Community Industrial Irrigation Injection
 Livestock Thermal Other: _____

(5) Bore Hole Construction
 Special Standards: Depth of completed well: **690.00 ft.**
 Explosives Used: Amount: _____ Type: _____

Hole			Seal			Sacks/lbs
Diameter	From	To	Mtrl	From	To	
8.00	690.00	690.00				

How was seal placed? _____ Other: **DID NOT DISTURB**
 Back fill placed from: _____ Material: _____
 Filter pack from: _____ Size: _____

(6) Casing / Liner

Casing/ Liner	Diameter	From	To	Gauge	Mtrl	Weld	Shoe Thrd	Shoe at used

(7) Perforation / Screens

Perforations:

Mtrl	From	To	Width	Height	#Slots	Dia.	tpSize	Casing/ Lnr	Method

Screens:

Mtrl	From	To	S Size	#Slots	Dia.	tpSize	Type	Gauge

(8) Well Tests (Minimum testing time is one hour)

Type	Yield	Units	Drawdown	Stem at	Duration
A	300.00	G		690.00	2.00
P	200.00	G	10.00		4.00

Temperature of Water: **63 F**
 Was water analysis done? Depth of artesian flow: _____
 by whom? _____
 Did any strata contain water unsuitable for use? Too Little Salty
 Muddy Odor Colored other: _____
 Depth of strata: _____

(9) Location of Hole by legal description
 County: **DESC** Latitude: **44°13'28"** Longitude: **121°14'20"**
 Township: **16.00 S** Range: **12.00 E**
 Section: **36 NESW** Lot: _____ Block: _____
 Tax Lot: **101** Subdivision: _____
 Street Address of Well (or nearest address):
6699 SW 68TH PLACE REDMOND
 MAP, with location identified, must be attached.

(10) Static Water Level
 Feet below land surface: **400.0** Date: **10 / 03 / 2005**
 Artesian Pressure: _____ Date: _____

(11) Water Bearing Zones
 Depth at which water was first found: **640.00 ft.**

From	To	est Flow	swl
640.00	690.00	300.00	400

(12) Well Log Ground Elevation: **3066 ft.**

Material	From	To	swl
BEGINNING SWL	0.00	0.00	400
ORIGINAL LOG DESC66939	0.00	0.00	
BASALT CLAY SEAMS	690.00	640.00	
CONGLOMERATE BASALT LAYERS	640.00	690.00	400

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WATER RESOURCES DEPT
SALEM, OREGON

Date Started: 10 / 03 / 2005 Date Completed: 10 / 03 / 2005

(unbonded) Water Well Constructor Certification:
 I certify that the work I perform on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best knowledge and belief.
 Signed by: **THOMAS R PECK** WWC #: **768**

(bonded) Water Well Constructor Certification:
 I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
 Signed by: **JACK ABBAS** WWC #: **1720**

T 10828