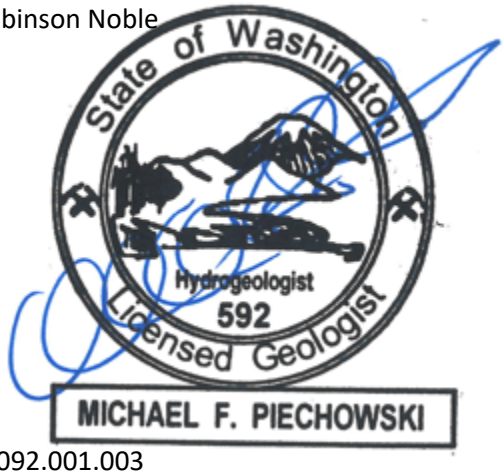
ROBINSON NOBLE
a terraphase company

Technical Memorandum

To: Aaron Fieser, PE
Stage 2 Design Manager
Washington State Department of Transportation (WSP USA)

Via Email:Aaron.Fieser@consultant.wsdot.wa.gov

From: Michael F. Piechowski, LHG
Principal Hydrogeologist
Robinson Noble



Date: December 16, 2024

Project No.: W092.001.003
(WSDOT Agreement Y-11918)

Subject: **Updated Hydrogeologic Evaluation of the SR 167 Extension Project's Potential Impacts to Critical Aquifer Recharge Areas**

Robinson Noble (RN), a wholly owned subsidiary of Terraphase Engineering Inc., is submitting this technical memorandum detailing our evaluation of the SR 167 Extension and the potential for impacts to Critical Aquifer Recharge Areas and water supply wells in the project area. To conduct this evaluation, we examined the relevant sections of the Municipal Codes for the Cities of Fife, Milton, and Puyallup, as well as the Pierce County Critical Areas Code. Additionally, we reviewed recent hydrogeological mapping and discussions of the area, reviewed historical reports from our archives, and we compiled and analyzed pertinent water well reports. Our analysis and summary are based on these efforts and our understanding of the region's hydrogeologic systems. This data and understanding serve as the foundation for the groundwater model we have developed and refined to evaluate the impacts of the SR 167 Extension.

Per the critical area maps available from Pierce County[1], the entirety of the SR 167 Extension project area is mapped as being in a Critical Aquifer Recharge Area. The individual polygons on this map

[1] "Aquifer Recharge Areas| Pierce County WA Open Geospatial Data Portal (v2.1)", accessed 12/14/2024, https://gisdata-piercecowa.opendata.arcgis.com/datasets/piercecowa::aquifer-recharge-areas/explore

represent regions where aquifers are considered vulnerable, typically based on EPA's DRASTIC[2] scores or the delineated wellhead protection areas for the public water supply wells in the region. Given the local geology, the EPA's DRASTIC model scores the Puyallup River Valley in the range of 180-199. This designates those areas as having a higher aquifer susceptibility. In Pierce County, areas with DRASTIC scores over 180 are mapped as Critical Aquifer Recharge Areas. While the DRASTIC approach is an appropriate, conservative analysis and does describe aquifer vulnerability for many hydrogeologic settings, it does not adequately describe the aquifer recharge and discharge relationships in this setting because of the thick and complex geological sequence present, the area's low elevation, the respective aquifer heads, and its location adjacent to Puget Sound.

In a simplified hydrogeological evaluation, areas can be classified as either a groundwater recharge area or a groundwater discharge area. In recharge areas, groundwater moves downward to recharge aquifers. In discharge areas, groundwater moves upward (discharging) out of aquifers. The stratigraphy of the lower Puyallup valley is a complex sequence of sands and silts, mostly associated with the deposits of the Puyallup River and the other drainages in the area. There are also mudflow deposits, and at depth, older glacial deposits. Our analysis of the region indicates that the lower Puyallup River Valley is an aquifer discharge area with an upward flow gradient. Water is discharging from the deeper aquifers as seepage, springs, or artesian discharge from wells. This is evidenced by water aquifer head patterns that increase as aquifer depth increases (aquifer water levels are higher with depth), with deeper aquifers (and even some shallower ones) having heads above land surface creating flowing artesian conditions. This is the opposite of recharge areas, where water levels decrease with well depth and there is a downward flow gradient.

Municipal Supply Source Discussion

Based on our review of information available from the Washington Department of Health[3], we understand that the City of Fife relies on a system of wells and an intertie with Tacoma to supply potable water. The City of Milton relies on six wells and several interties to supply potable water to their customers. The City of Puyallup uses two spring sources, six wells, and an intertie.

We collected and reviewed available information regarding the City of Fife's wells and have included the Water Well Reports in the appendix. Fife's wells are located near Hylebos Creek, north of 12th Street and 8th Street at 62nd Ave, and near Wapato Creek, located near David Court (Figure 1). Previously, Robinson Noble assisted the City with the drilling, construction, and testing of Well 3 when it was deepened, and with the drilling, construction, and testing of Wells 5 and 6. We reviewed our reports and files for these

[2] "DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Settings", accessed 12/12/2024, https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=20007KU4.txt

[3] "Washington Department of Health Sentry Internet Home Page", accessed 12/14/2024, https://fortress.wa.gov/doh/eh/portal/odw/si/Intro.aspx

wells[4,5,6]. We are also aware of two deep wells that have been recently drilled for Fife. One is located near Valley Avenue and Freeman Road (former Holt property) and the other was recently drilled at the same site as Wells 4, 5, and 6, but neither of these deep wells are listed as current system sources at DOH. Our analysis of the records indicates that all of Fife's wells are artesian (the water level in the well rises above the top of the aquifer formation the well is completed in), several are documented as being flowing artesian wells with heads up to 19 feet above land surface.

Milton relies entirely on their network of five production wells for their potable water supply, turning to interties only when their system is experiencing outages. All five of the City of Milton's current wells are relatively shallow and located along the eastern margin of the East Hylebos valley, within the northern portion of the modeled area and near the SR 167 project construction area. Milton currently operates Wells 3, 10R, 12, and Corridor Wells 1 and 2 for all their potable water. Well 5R was drilled several years ago and is in the process of being equipped and brought online as a replacement for Well 5. Milton also has a new deep production well, but that well has not yet been placed into service. Both Well 5R and Deep Production Well 1 are located on the upland north and east of the study area. Robinson Noble has assisted the City of Milton with their wells, either with clean out and redevelopment (Well 3 and Corridor Well 1), or with the drilling, design, construction, and testing (Well 5R[7], 10R[8], 12[9], Corridor Well 2[10], and the Deep Production Well[11]). Like Fife, all of Milton's wells are artesian, though only Corridor Well 1 has been observed to flow seasonally. Milton's well locations are also indicated on Figure 1, Water Well Reports are included in the appendix.

Puyallup relies on two spring sources, six wells, and an intertie for their water sources. The springs are located to the east and south of the SR 167 project area and due to aquifer extents and flow directions, they have recharge areas extending further to the east and south, respectively. Puyallup's municipal wells are generally on the south side of the Puyallup river, except for Well 17, AAB894, which is located at the Puyallup Recreation Center, near the SR 167 project and within the modeled area. Salmon Springs is the City's main source; it provides approximately half of the City's potable supply. Salmon Springs is

[4] Tillson, D. 1971, Deepening of Well 3, prepared for the Town of Fife by Robinson & Noble, Inc, 4p.

[5] Sebren, M. and Noble, J., 1986, Construction Report for Well 5, prepared for the City of Fife by Robinson & Noble, Inc, 22p.

[6] Becker, J., 1987, Construction Report for Well 6, prepared for the City of Fife by Robinson & Noble, Inc, 21p.

[7] Piechowski, M, 2020, City of Milton Well 5R Construction and Testing Report, prepared for the City of Milton by Robinson Noble, Inc, 39p.

[8] Brownell, A and Piechowski, M, 2018, City of Milton Well 10R Construction and Testing Report, prepared for the City of Milton by Robinson Noble, Inc., 61p.

[9] Bieber, R and Clothier, B, 2002, City of Milton Construction and Testing of Well 7R (Well 12), prepared for the City of Milton by Robinson & Noble, Inc., 49p.

[10] Bieber, R and Clothier, B, 2005, Construction and Testing of City of Milton Corridor Well 2, prepared for the City of Milton by Robinson & Noble, Inc., 44p.

[11] Brownell, A and Piechowski, M, 2024, Well Construction and Testing, Deep Production Well 1, City of Milton, prepared for the City of Milton by Robinson Noble, Inc., 91p.

located approximately 3.5 miles to the east of the project area, along the eastern side of the White River valley wall, on the eastern side of the White River. Maplewood Springs is another of the City's spring sources, it is located at the headwaters of Clarks Creek, approximately two miles to the south of the project area and on the southern side of the Puyallup River. We were able to locate all six of the City's current water wells but were unable to locate water well reports for all of them. Over the years, Robinson Noble has assisted Puyallup with Well 13, the Cherokee Park Well, Well 27[12], and Well 33[13]. Similar to Fife and Milton, Puyallup's wells are all artesian; Well 14 has considerable flow. Puyallup's well and spring locations are included on Figure 1, available Water Well Reports are included in the appendix.

Hydrogeologic Discussion

Over the past six years, Robinson Noble has worked on developing and revising a groundwater model of the northern side of the lower Puyallup Valley (downstream of the White River confluence to Commencement Bay) to assess the impacts of the proposed construction of the SR 167 extension.[14] The modeled domain includes all of the City of Fife, portions of Milton, and portions of Puyallup, extending from the Puyallup River to Commencement Bay, and from the White River confluence near SR 410 to the mouth of the Puyallup River (Figure 1). Due to the specific questions we were asked to address through this modeling, the original and revised models were focused on the shallower aquifer systems and were built with six discrete layers, defined based on our review and evaluation of water well reports and geotechnical drilling logs distributed through the area of interest. We simulated an upper confining layer, an upper sand aquifer, a middle confining layer, a lower sand aquifer, a deeper confining layer, with the deep regional aquifer system beneath that forming the base of the model.

The original and revised models were calibrated to water level data sets developed at monitored piezometers in layers 2 and 4 throughout the study area. The model results showed similar seasonal fluctuations in head over the calibration period. Our modeling indicates that as proposed, the addition of SR 167 and the construction of the wetland mitigation and riparian restoration areas will locally alter the shallow water table. However, the drainage patterns and networks will be maintained or improved, and the recharge and discharge characteristics of the area's aquifers, especially the deeper aquifer systems supplying the larger municipal wells, will remain largely unaffected.

Locally, construction dewatering will be necessary for the construction and relocation of utilities. Dewatering locally depresses groundwater, allowing subsurface excavation and construction in dry

[12] Noble, J and Ellis, C, 96th Street Test Well for the City of Puyallup, prepared for the City of Puyallup by Robinson & Noble, Inc. 34p.

[13] Robinson & Noble, 1992, Modification of Well 33 for the City of Puyallup, prepared for the City of Puyallup by Robinson & Noble, Inc. 26p.

[14] Becker, J, and Piechowski, M, 2019, Current and Historical Hydrogeologic Conditions Assessment, Groundwater Modeling, and Future Hydrogeologic Conditions Assessment, prepared for the Washington Department of Transportation by Robinson Noble, Inc., 243p.

conditions. In this region, dewatering has the potential to impact nearby wells completed in the deeper sand aquifer (model layer 4). The degree of impact is directly related to the depth of dewatering, the volume and duration of dewatering efforts, and the proximity of the dewatering to the nearby wells.

The planned SR 167 highway extension will result in additional impervious surfaces but will also result in the construction of stormwater facilities to address runoff from the impervious highway surface. Stormwater facilities are designed in accordance with the appropriate code requirements. The fundamental design principles are to treat and infiltrate what stormwater can be infiltrated, discharging the rest via surface drainages.

Fife's wells, except Well 1 and possibly Well 2, which may be completed in layer 4, are completed in the deep regional aquifer system, modeled as layer 6. Most of the City of Milton's wells are completed in aquifers correlating with model layer 4 (Wells 3, 10R, and 12, as well as Corridor Wells 1 and 2). Milton Well 5R is completed in a deeper aquifer in the upland area to the east of the model and was not included in the model's domain. The City of Puyallup's spring sources are not located within the modeled area. In addition to their distance from the SR 167 project area, the Puyallup and White Rivers create hydrogeologic boundaries between the proposed project and the springs. Puyallup's wells are generally located outside the model domain to the south of the Puyallup River (Figure 1). The only Puyallup well we could find a location for within the model area is referred to as Well 17, located at the Puyallup Recreation Center. Unfortunately, we have not been able to locate a water well report for that well. Well 17 is reported to be 882 feet deep, placing it into the deep regional aquifer system.

Conclusions

Our modeling efforts indicate that the potentiometric surface of the shallowest aquifer may locally rise in areas where the proposed highway is elevated on a soil prism, and it may locally decline in areas where the stream channels are excavated as a part of wetland restoration. The deeper aquifer systems will show less of a response because of the presence of the confining units separating them from the impacts at the surface, with a minimal effect on the deep sand aquifer (layer 4) and essentially no effect on the deep regional aquifer system (layer 6). The deeper aquifers (layers 4 and 6) will continue to maintain their heads above land surface.

Localized construction dewatering will be necessary during certain aspects of the construction of the SR 167 Extension. By design, the process of construction dewatering locally depresses groundwater levels to allow for subsurface work without the complications of groundwater infiltration. Construction dewatering is a temporary process, so any impact or impairment should not be long-term or permanent, but potential impact to nearby water supply wells should be considered before dewatering, with volumes and durations minimized to the degree possible in areas where impacts are possible.

As the lower Puyallup River Valley is an aquifer discharge area, where recharge to the aquifers is limited by the ability of the aquifers to accept it (the recharging head of the infiltrating water must be higher than the receiving aquifer's head), we do not anticipate any adverse impacts to the local aquifer recharge potential because of the construction of the proposed highway. This is especially true of the

deep regional aquifer system, which receives its recharge from regions outside of the lower Puyallup River valley. With the presence of the upward gradient from the deeper aquifers, it is not possible for rainfall to infiltrate and recharge these aquifers unless that upward gradient from the deeper aquifers is overcome, so much of the precipitation runs off as overland flow.

In summary, despite being classified as a Critical Aquifer Recharge Area, hydrogeologically, the lower portion of the Puyallup River Valley is an aquifer discharge zone where groundwater moves upward from depth, rather than a recharge zone where water moves downward towards the deeper aquifers. Many of the deeper production wells are completed in a deep regional aquifer system that receives much of its recharge from outside the valley. Shallower wells within the area studied, such as Fife Wells 1 and 2, as well as the City of Milton's Wells 3, 10R, 12, and Corridor Wells 1 and 2 are likely completed in sediments correlative to the deeper sand aquifer (layer 4 in the model). Our observations and analysis indicate that these aquifers are also discharging, heads in the aquifer are significantly above the uppermost expressions of the aquifer material and there is a discharge gradient out of the aquifer into the overlying model layers. Because of the nature and design of the project and hydrogeology of this area, the SR 167 Extension project will not adversely impact the local aquifer recharge potential.

Thank you for the opportunity to provide our services. Please do not hesitate to contact us should you have any questions or require additional assistance with this issue.

Figures

1. Vicinity Map

Corridor Well 2
Corridor Well 1
Fife Well 3
Fife Well 1
Milton Well 12
Milton 5R
Fife Well 6
Fife Well 5
Well 10R
New Fife Well
Fife Well 4
Well 3
Milton DPW1
Fife Well 2
Fife (Holt) Well
Puyallup Well 17 (Rec Center)
Puyallup Salmon Springs
Puyallup Well 14
Puyallup Well 13
Puyallup Maplewood Spring
Puyallup Well 27
Puyallup Well 33
Puyallup Well - Cherokee
0 1 Mile

Legend

- City of Fife Well Location
- City of Puyallup Well Location
- City of Puyallup Spring Location
- City of Milton Well Location
- Model Boundary

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Note: Basemap taken from USGS Puyallup and Poverty Bay Quadrangles

PM: MFP
December 2024
W092.001.003

Pierce County
T 20 N/R 3,4 E
Scale 1" = 1 Mile

Figure 1
Vicinity Map
Washington State Department of Transportation: Fife CARA Evaluation

Appendix A

Water Well Reports for Fife, Milton, and Puyallup

DOE well # ABR698

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT Appli.#7431

WELL LOG No. Permit #7134

Date December 26, 1965

Record by Driller

Source Driller's Record

Location: State of WASHINGTON

County Pierce

Area

Map

NE ¼ SE ¼ sec. 12 T. 20 N., R. 3 E. W.

Diagram of Section

Drilling Co. E.L.Kelley, Water Supt., Town of Fife

Address 3110 Sieade Rd. East, Puyallup, Wash.

Method of Drilling Cable Date December, 1964

Owner Town of Fife

Address 2619 David Court Place East, Tacoma

Land surface, datum ft. above / below

CORRELATION	MATERIAL	~~THICKNESS~~ (feet) From	~~DEPTH~~ (feet) To
	(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)		
	Municipal supply		
	Dims: 6" x 90'		
	Silty top dirt	0	3
	Silty clay, sand	3	75
	Sand	75	90
	Casing: 6" from 0-90'		
	Screen installed from 80-90'		
	SWL: 2' on 2-23-65		
	Yield: 150 gpm with 21' DD after 8 hrs.		
	Recovery—Time Water Level		
	0 21'		
	4 min. 2'		
	Pump: 10 h.p. turbine		
	Jacuzzi		

Turn up

Sheet of sheets

File number 20/4E-12H1

WATER WELL REPORT
STATE OF WASHINGTON

File Original and First Copy with the Division of Water Resources
Second Copy — Owner's Copy
Third Copy — Driller's Copy

Application No. 7431
Permit No. 7134

(1) OWNER:
Name TOWN OF FIFE
Address 2619 David Court Place East
Tacoma, Washington

(2) LOCATION OF WELL:
County Pierce Owner's number, if any—
NE ¼ SE ¼ Section 12 T. 20 R. 3 E. W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED: Threaded ☐ Welded ☒
6" Diam. from 0 ft. to 90 ft. Gage Std.
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) 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.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS: Well screen installed ☐ Yes ☐ No
Manufacturer's Name Johnson
Type Everdur Model No.
Diam. 6" Slot size 18 Set from 80 ft. to 90 ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.
Was a surface seal provided? ☐ Yes ☐ No To what depth? ft.
Material used in seal—Casing 2Ft above Concrete Floor
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 2 ft. below land surface Date 2-23-65
Artesian pressure lbs. per square inch Date
Water is controlled by
(Cap, valve, etc.)

(11) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom?
Yield: 150 gal./min. with 21 ft. drawdown after 8 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level
0	21 Ft.	4 Min.	2 Ft

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? ☒ Yes ☐ No

(12) WELL LOG: Diameter of well 6 inches.
Depth drilled 90 ft. Depth of completed well 90 ft.

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Silty Top Dirt	0	3Ft
Silty Clay Sand	3Ft	75Ft
Sand	75Ft	90Ft

Work started Nov. 1964 Completed Dec 1964

(13) PUMP:
Manufacturer's Name Jaccuzi
Type: Turbine H.P. 10

Well Driller's Statement:

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

NAME E.L. Kelley Water Supt. Town of Fife
(Person, firm, or corporation) (Type or print)
Address 3110 Sieade Rd East Puyallup Wn
[Signed] E.L. Kelley
(Well Driller)
License No. Date 12-26, 1965

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—(Rev. 9-62)—8-62—5M. 75168.

OK/WRL

Pierce County Assessor-Treasurer's Office

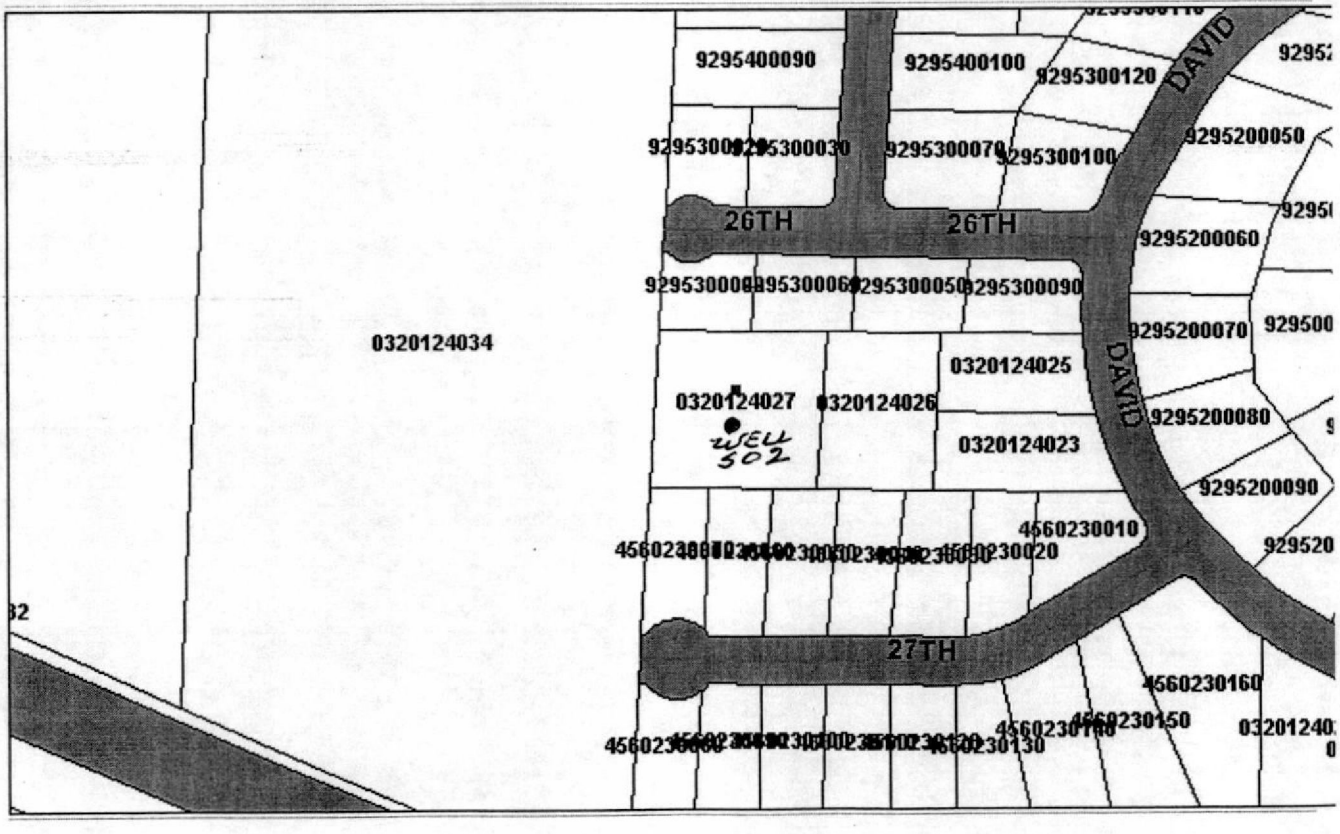
Parcel: R0320124027
Name: FIFE CITY OF
Site Address: 26TH ST E
Mailing Address: 3737 PACIFIC HWY E , FIFE WA 98424
Use Code: 9600 VACANT LAND - RESIDENTIAL.
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Building Characteristics | Parcel Map | Recorded Data | Back to Search

Zoom Level: 5.0 Zoom

---North---

RTSQ: 03-20-12-4-1 **School Dist:** Fife



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

I acknowledge and agree to the prohibitions listed in RCW 42.17.260(9) against releasing and/or

40909

Tacoma-Pierce County
Health Department

Unique Well ID Number A B R 6 9 8
X Y Z 1 2 3

WELL TAGGING FORM

All shaded areas **must** be completed.

Date of Field Visit 7-9-98 By COCHRAN & BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 25050N Source # SO 2

USGS Site Identification _____
Other

RECORD VERIFICATION

☑ Well Report available (*please attach*)
☐ Well Report not available
☐ Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name FIFE DEPT. OF PUBLIC WORKS

Street Address 3725 PACIFIC HWY E

City FIFE State WA. 98424

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address 5004 26TH ST E

City _____ County PIERCE

T. 20 N. R. 03 E W.M. Sec. 12 NE ¼ of the SE ¼

Latitude N 47 ° 13 ' 59.84

Longitude W 122 ° 21 ' 37.61 "
100

☑ GPS (raw data)
☑ GPS (corrected)
☐ Topographic Map
☐ Survey
☐ Computer Generated
☐ Other _____

Elevation at land surface _____ feet/meters (circle one)

☐ Digital Altimeter
☐ Topographic Map
☐ Other

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water right # 2-07431 Priority Date

Circle One: Application Permit Certificate Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 6" cased well in small well house

Location of Well Identification Tag: on 6" casing

Was supplemental tag needed for ease of identifying well?

☑ NO ☐ YES

If yes, where was tag placed?

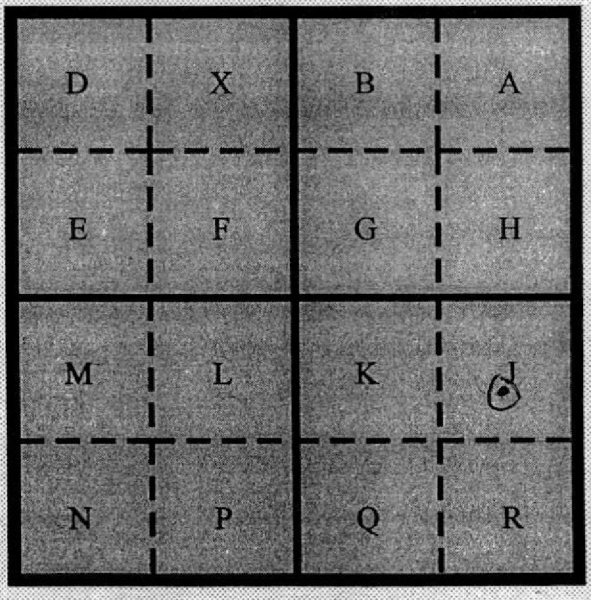
Scale 1:24,000 (1"=2,000')

Indicate the location of the well within the Section by drawing a dot at that point.

SECTION 12

TOWNSHIP 20

RANGE 03E



COMMENTS: _____

_____

_____

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

DOE Well
Application No. ABR146
Permit No.

(1) OWNER: Name CITY OF FIFE Address 5531 23rd St. E., FIFE, WA. 98424

(2) LOCATION OF WELL: County PIERCE — NW¼ SE¼ Sec. 6 T. 20 N., R. 4E W.M.
Bearing and distance from section or subdivision corner APPROX. 2300' W AND 1800' N OF SE COR SEC 6

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☒ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) WELL 5
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 12 inches.
Drilled 695 ft. Depth of completed well 687 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 12" Diam. from +2.5 ft. to 687 ft.
Threaded ☐ 16" Diam. from +1.6 ft. to 409 ft.
Welded ☒ 20" Diam. from +9 ft. to 67 ft.

Perforations: 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.

Screens: Yes ☒ No ☐
Manufacturer's Name JOHNSON
Type WATERMARK, STAINLESS Model No.
Diam. 8" Slot size 30 from 645.5 ft. to 676.8 ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☒ No ☐ Size of gravel: MONTEREY AQUA 8
Gravel placed from 600 ft. to 687 ft.

Surface seal: Yes ☒ No ☐ To what depth? 50 ft.
Material used in seal CEMENT/SAND MIX
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? ... Depth of strata ...
Method of sealing strata off ...

(7) PUMP: Manufacturer's Name N.A.
Type: ... H.P. ...

(8) WATER LEVELS: Land-surface elevation above mean sea level 15± ft.
Static level 17' ft. ABOVE top of well Date 4/7/86
Artesian pressure 7.35 lbs. per square inch Date "
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? ROBINSON + NOBLE
Yield: 784 gal./min. with 129 ft. drawdown after 24 hrs.

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
0	112	10	16.9		
1	38	32	8.0		
5	22.5	102	FLOW		

Date of test 3/28+29/86
Bailer test ... gal./min. with ... ft. drawdown after ... hrs.
Artesian flow 80 g.p.m. Date 3/28/86
Temperature of water 56 Was a chemical analysis made? Yes ☒ No ☐

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
ARTIFICIAL FILL	0	5
DARK BROWN SAND + SILT, W.B.	5	29
BLACK SAND, OCC. GVL. W.B.	29	48
GRAY CLAY, OCC. GVL.	48	53
DARK BROWN TO BLACK SAND	53	73
DARK BROWN SILTY SAND, SHELLS, CLAY LAYERS	73	99
BLACK SAND, WOOD FRAGMENTS	99	108
GRAVEL, OCC. SILT, SAND, WOOD, SHELLS	108	113
GRAVEL, OCC. SAND, WOOD, SHELL	113	130
GRAY GREEN GVL SOME SAND AND SILT, W.B.	130	170
GRAY GREEN GVL, SAND, SILT, CLAY	170	189
LOOSE SAND AND GRAVEL	189	195
GRAY GREEN GVL, CLAY MATRIX	195	224
GRAY GREEN GVL + SAND, W.B.	224	231
GRAVEL + SAND SOME SILT MATRIX	231	246
GRAY SILT AND CLAY	246	290
GRAY SAND GVL SILT + CLAY	290	330
DARK GREEN SAND, GVL, SILT, CLAY	330	420
GRAY SAND OCC GVL	420	426
GRAY SAND, GVL, + CLAY	426	442
LAVENDAR GRAY SILT	442	452
GRAY SAND, GVL + CLAY	452	457
GRAY SILT + CLAY	457	475
ALTERNATING GRAY SAND + PEAT	475	487
GRAY BROWN PEAT, SAND, SILT	487	490
GRAY BROWN GVL, SAND, SILT	490	498
MULTICOLORED PEAT AND SILT	498	518
BROWN GRAY SANDY SILT, OCC. WOOD	518	544
GRAY SILTY SAND	544	555
GRAY BROWN SILT + SAND + CLAY	555	620
GRAY BROWN SILT + SAND	620	640
GREEN SILT AND CLAY	640	642
GREEN SAND, OCC. GVL, W.B.	642	688
GRAY GVL, SAND, SILT AND PEAT	688	695

Work started 12/2, 1985. Completed 4/2, 1986

WELL DRILLER'S STATEMENT:

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

NAME BURT WELL DRILLING (Person, firm, or corporation) (Type or print)
Address 19782 N.E. Lincoln Rd. Poulsbo, Wa. 98370
[Signed] George Burt (Well Driller)
License No. 0048 Date 4-19, 1986

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

ORIGINAL SIGNED BY DRILLER

Pierce County Assessor-Treasurer's Office

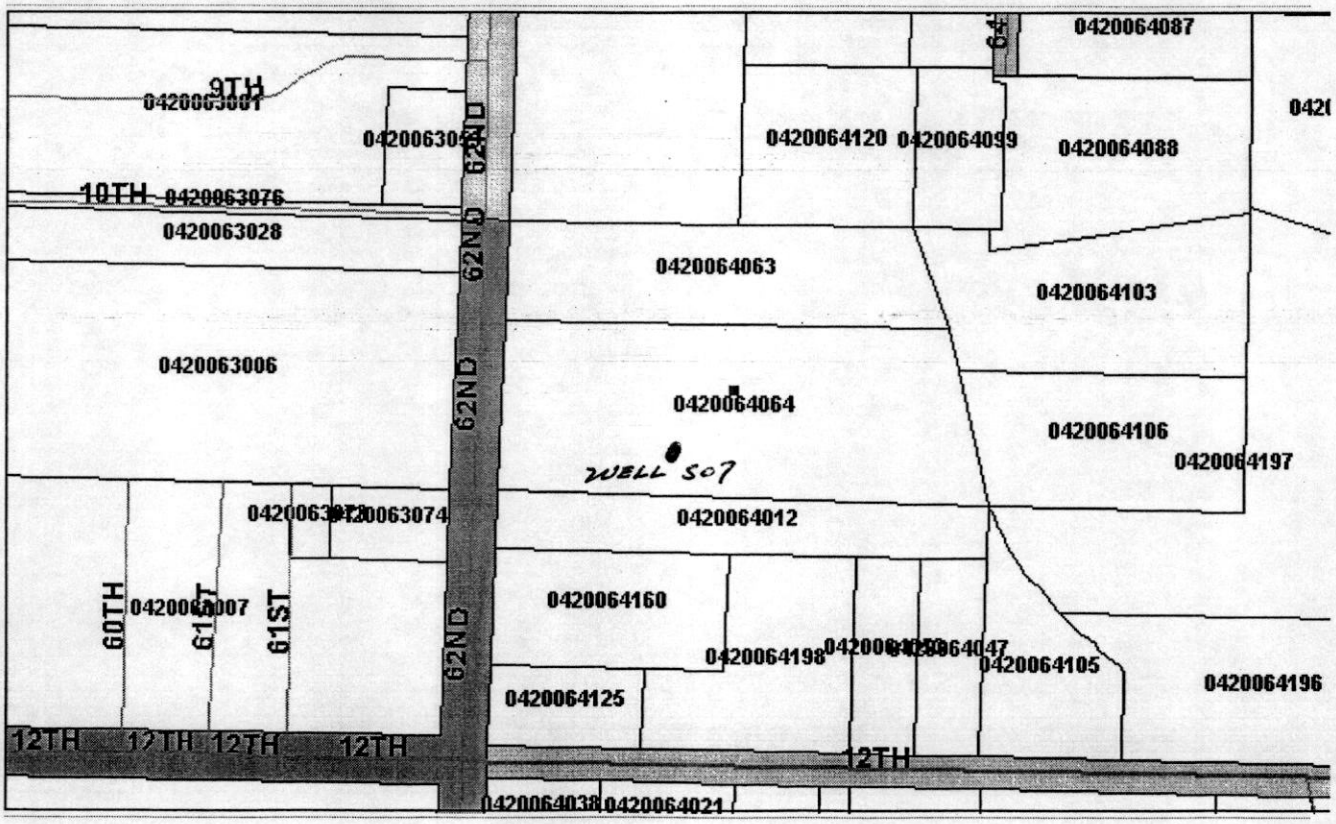
Parcel: R0420064064
Name: FIFE CITY OF
Site Address: 1021 62ND AVE E
Mailing Address: 3737 PACIFIC HWY E , FIFE WA 98424
Use Code: 4835 WATER PRESSURE CONTROL STATIONS.
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Building Characteristics | Parcel Map | Recorded Data | Back to Search

Zoom Level: 5.0 Zoom

---North---

RTSQ: 04-20-06-4-2 **School Dist:** Fife



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

I acknowledge and agree to the prohibitions listed in RCW 42.17.260(9) against releasing and/or

45278

Unique Well ID Number A B R 1 4 6
X Y Z 1 2 3

Tacoma-Pierce County
Health Department

WELL TAGGING FORM

All shaded areas **must** be completed.

Date of Field Visit 7-9-98 By COCHRAN & BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 25050 N Source # SO 7

USGS Site Identification _____
Other

RECORD VERIFICATION

☑ Well Report available (*please attach*)
☐ Well Report not available
☐ Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name FIFE DEPT. OF PUBLIC WKS.

Street Address 3725 PACIFIC HWY E

City FIFE State WA. 98424

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address 1023 62ND AVE E
City FIFE County PIERCE
T. 20 N. R. 04 E W.M. Sec. 06 NW ¼ of the SE ¼

Latitude N 47 ° 14 ' 50.41 "
Longitude W122 ° 20 ' 40.36 "
098

☑ GPS (raw data)
☑ GPS (corrected)
☐ Topographic Map
☐ Survey
☐ Computer Generated
☐ Other _____

Elevation at land surface _____ feet/meters (circle one)

☐ Digital Altimeter
☐ Topographic Map
☐ Other

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water right # G2-27231C Priority Date

Circle One: Application Permit (Certificate) Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 20" outside - 12" inside cased well - in large well house

Location of Well Identification Tag: on 6" line welded to 12" casing

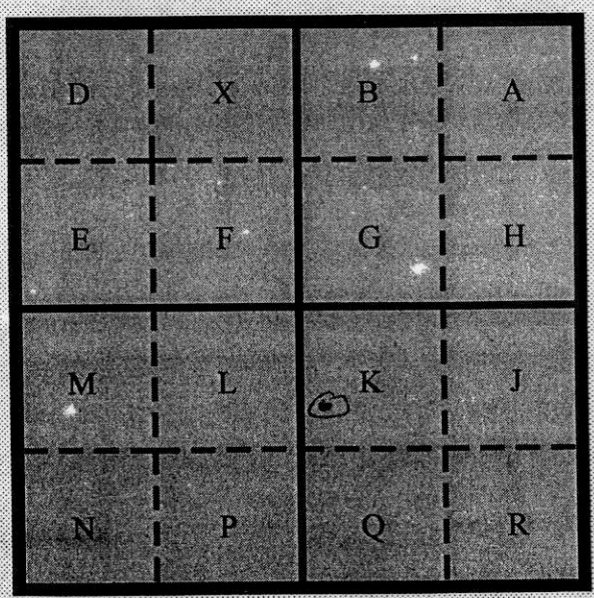
Was supplemental tag needed for ease of identifying well?

☑ NO ☐ YES

If yes, where was tag placed?

Scale 1:24,000 (1"=2,000')

Indicate the location of the well within the Section by drawing a dot at that point.



SECTION 06

TOWNSHIP 20

RANGE 04E

COMMENTS: _____

File original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....

Permit No. .....

(1) OWNER: Name City of Fife Address 5209 Pacific Hwy. E. Fife, Wa. 98424

(2) LOCATION OF WELL: County Pierce — NE ¼ SW ¼ Sec. 6 T. 20 N., R. 4E W.M.

Bearing and distance from section or subdivision corner None

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one).... 6
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 16 inches.
Drilled 175½ ft. Depth of completed well 174 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 16" Diam. from 0 ft. to 143 ft.
Threaded ☐ ." Diam. from ft. to ft.
Welded ☒ ." Diam. from ft. to ft.

Perforations: 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.

Screens: Yes ☒ No ☐
Manufacturer's Name Johnson Well
Type Stainless steel Model No
Diam. 10 Slot size 30 from 143 ft. to 169 ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☒ No ☐ Size of gravel: sand/T1292
Gravel placed from 118 ft. to 174 ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Concrete
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 11 ft. below top of well Date 2-6-87
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Kempe
Yield: 325 gal./min. with 84 ft. drawdown after 33 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test 2-6-87
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Fill	0	5
Dark brown organically rich sand & silt-water bearing	5	10
Dark bown, organically rich sand & silt-water bearing	10	28
Black coarse sand with occasional gravel-water bearing	28	48
Gray clay with occasional gravel	48	53
Dark brown to black, silty fine to meduim sand	53	73
Same w/shells & clay seams	73	79
Black, meduim to coarse sand w/wood fragments	79	108
Dark gray, silty fine to meduim sand & gravel	108	113
Gravel w/occasional silty sand matrix, occasional wood & shells	113	130
Gray green to black gravel w/some fine to meduim sand & silt waterbearing	130	170
Gray green to black gravel & sand w/silt-clay matrix-probaly till	170	174

RECEIVED SEP 15 1988 WATER RESOURCES

Work started 12-18 19 86 Completed 2-20 19 87

WELL DRILLER'S STATEMENT:

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

NAME Richardson Well Drilling Co.
(Person, firm, or corporation) (Type or print)

Address P.O. Box 44427 Tacoma, Wa. 98444

[Signed] (Well Driller)

License No. 0419 Date 5-29 19 87

Kempe

(USE ADDITIONAL SHEETS IF NECESSARY)

Pierce County Assessor-Treasurer's Office

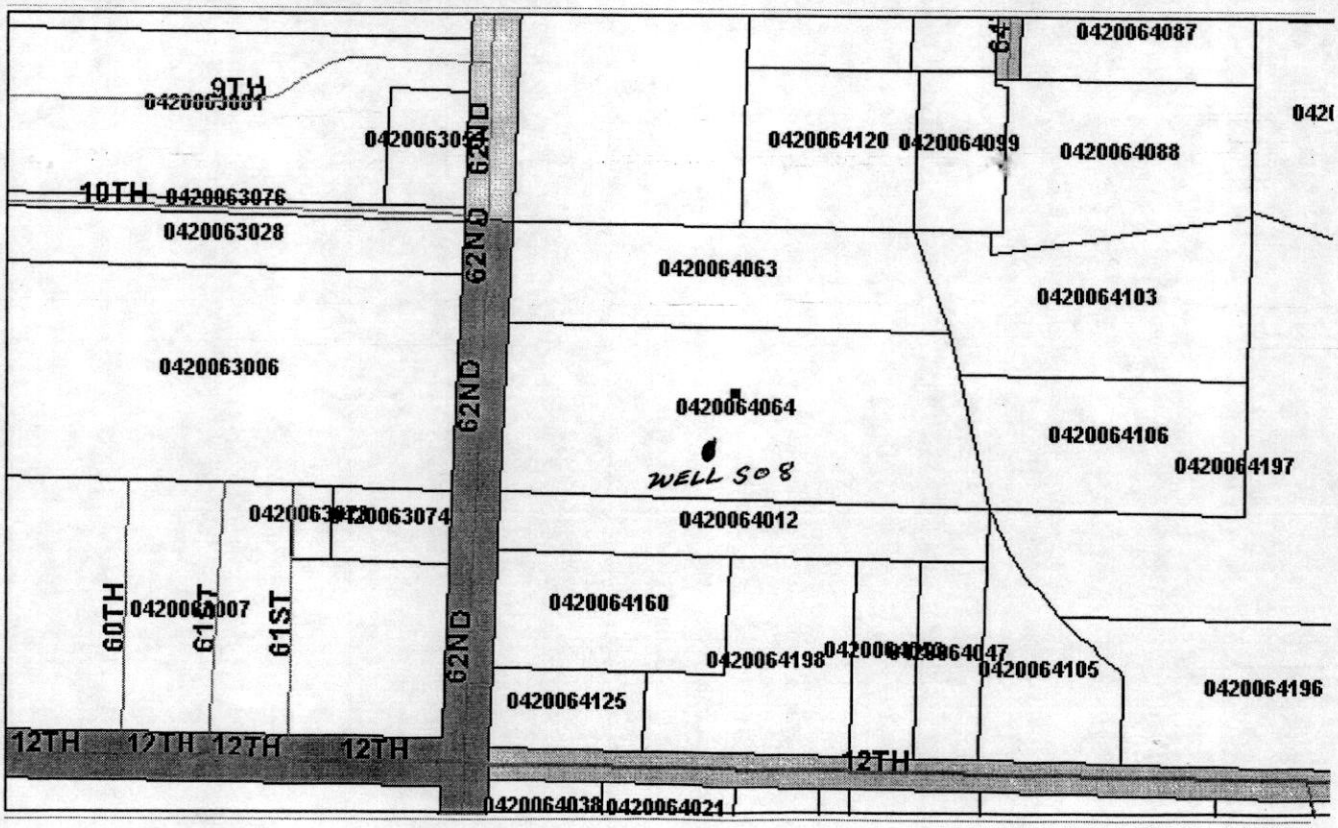
Parcel: R0420064064
Name: FIFE CITY OF
Site Address: 1021 62ND AVE E
Mailing Address: 3737 PACIFIC HWY E , FIFE WA 98424
Use Code: 4835 WATER PRESSURE CONTROL STATIONS.
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Building Characteristics | Parcel Map | Recorded Data | Back to Search

Zoom Level: 5.0 Zoom

---North---

RTSQ: 04-20-06-4-2 **School Dist:** Fife



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

I acknowledge and agree to the prohibitions listed in RCW 42.17.260(9) against releasing and/or

45281

Tacoma-Pierce County
Health Department

Unique Well ID Number AEF201
X Y Z 1 2 3

WELL TAGGING FORM

All shaded areas **must** be completed.

Date of Field Visit 7-9-98 By COCHRAN + BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 250050N Source # SO 8

USGS Site Identification _____
Other

RECORD VERIFICATION

☑ Well Report available (*please attach*)
☐ Well Report not available
☐ Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name FIFE DEPT OF PUBLIC WORKS

Street Address 3725 PACIFIC HWY E

City FIFE State WA. 98424

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address 1023 62ND AVE E
City FIFE County PIERCE
T. 20 N. R. 04 W.M. Sec. 06 NW ¼ of the SE ¼

Latitude N 47 ° 14 ' 51.40 "
Longitude W 122 ° 20 ' 39.89 "
094

☑ GPS (raw data)
☑ GPS (corrected)
☐ Topographic Map
☐ Survey
☐ Computer Generated
☐ Other _____

Elevation at land surface _____ feet/meters (circle one)

☐ Digital Altimeter
☐ Topographic Map
☐ Other

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water right # Priority Date

Circle One: Application Permit Certificate Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 16" cased well in large well house 20' from SOJ

Location of Well Identification Tag: on 16" casing

Was supplemental tag needed for ease of identifying well?

☐ NO ☐ YES

If yes, where was tag placed?

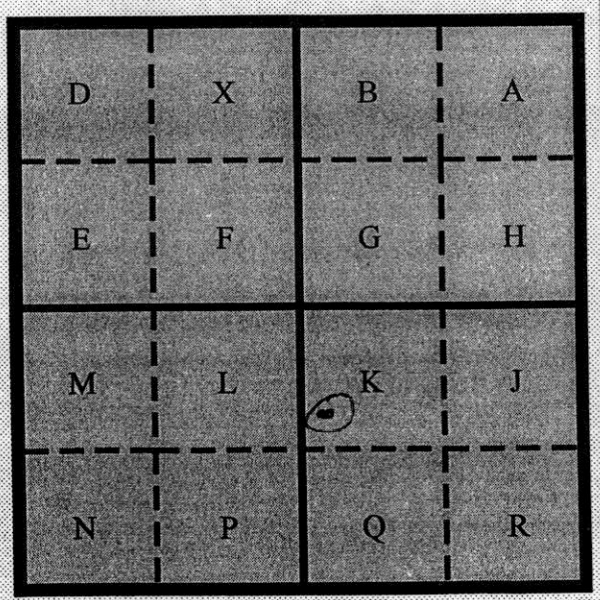
Scale 1:24,000 (1"=2,000')

Indicate the location of the well within the Section by drawing a dot at that point.

SECTION 06

TOWNSHIP 20

RANGE 04E



COMMENTS: _____

_____

_____

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. .....
Permit No. .....

(1) OWNER: Name City of Fife Address 5531 23rd St. E. Fife, Wa. 98424

(2) LOCATION OF WELL: County Pierce — NW ¼ SE ¼ Sec. 6 T. 20 N., R4E W.M.

Bearing and distance from section or subdivision corner Legal Attached

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) 4
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 8 inches.
Drilled 172 ft. Depth of completed well 166 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 8 " Diam. from 0 ft. to 98 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: 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.

Screens: Yes ☒ No ☐
Manufacturer's Name Johnson Well Screen
Type Stainless Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Screen Attached

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 20 ft. below top of well Date 7-19-75
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Driller
Yield: 600 gal./min. with 50½ ft. drawdown after 4 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top soil	0	5
Dirty sand/wet heaves	5	22
Sand - but coarser	22	28
Sand & gravel	28	30
Sand dirty - heaves	30	37
Gravel & clay	37	40
Dirty Sand-heaves	41	61
Sand, fine gravel, yellow clay	61	88
Sand gr vel & clay - blue	88	91
Hardpan	91	96
Hard sandy green clay	96	97
Hardpan	97	108
Sand-dirty-hole stands open	108	115
Hard	115	118
Sandy grey clay/streaks of	118	136
pinkish clay	kkx	
Hardpan	136	148
Clay, sand & gravel	148	153
Hardpan	153	157
Dirty Sand	157	167

RECEIVED
MAR 22 1976
DEPARTMENT OF ECOLOGY

Work started 5-12, 19 75 Completed 7-21, 19 75

WELL DRILLER'S STATEMENT:

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

NAME Richardson Well Drilling Co.
(Person, firm, or corporation) (Type or print)

Address P. O. Box 44408 Tacoma, Wa. 98444

[Signed] (Well Driller)

License No. 223-02-6500 Date 1-15, 19 76

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

WATER WELL REPORT

Original & 1st copy - Ecology, 2nd copy - owner, 3rd copy - driller

Construction/Decommission ("x" in circle) 377786

- [x] Construction
- [ ] Decommission *ORIGINAL INSTALLATION*

Notice of Intent Number _____

PROPOSED USE: [ ] Domestic [ ] Industrial [x] Municipal [ ] DeWater [ ] Irrigation [ ] Test Well [ ] Other _____

TYPE OF WORK: Owner's number of well (if more than one) _____

[x] New well [ ] Reconditioned *Method:* [ ] Dug [ ] Bored [ ] Driven [ ] Deepened [x] Cable [ ] Rotary [ ] Jetted

DIMENSIONS: Diameter of well 10 inches, drilled 1005 ft.
Depth of completed well 994 ft.

CONSTRUCTION DETAILS 20" +6" 70'
Casing [x] Welded 16 " Diam. from +1 ft. to 447 ft.
Installed: [ ] Liner installed 12 " Diam. from +1.5 ft. to 701 ft.
[ ] Threaded 10 " Diam. From +3 ft. to 900 ft.

Perforations: [ ] Yes [x] No
Type of perforator used _____
SIZE of perfs ____ in. by ____ in. and no. of perfs ____ from ____ ft. to ____ ft.

Screens: [x] Yes [ ] No [ ] K-Pac Location _____
Manufacturer's Name JOHNSON
Type STAINLESS Model No. _____
Diam. 6" PIPE Slot size .030 from 895'-10" ft. to 884 ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel/Filter packed: [x] Yes [ ] No Size of gravel/sand 8-12
Materials placed from 846'-4" ft. to 994 ft.

Surface Seal: [x] Yes [ ] No To what depth? 70 ft.
Material used in seal CEMENT
Did any strata contain unusable water? [ ] Yes [x] No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level _____ ft. below top of well Date _____
Artesian pressure 10 lbs. per square inch Date 3-20-09
Artesian water is controlled by CAP WITH 4" VALVE SIDE PORT (cap, valve, etc.)

WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? [ ] Yes [x] No If yes, by whom? _____
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer Test ____ gal./min with ____ ft. drawdown after ____ hrs.
Airtest ____ gal./min. with stem set at ____ ft. for ____ hrs.
Artesian flow ____ g.p.m. Date _____
Temperature of water ____ Was a chemical analysis made? [ ] Yes [ ] No

CURRENT

Notice of Intent No. W212862
Unique Ecology Well ID Tag No. BAM-415
Water Right Permit No. G2-30262
Property Owner Name RANDY HOLT
Well Street Address 3820 FREEMAN RD. E.
City FIFE County PIERCE
Location SW 1/4-1/4 NE 1/4 Sec 17 Twn 20N R 4 EWM [x] Check Or WWM [ ] One
(s, t, r Still REQUIRED)

Lat/Long Lat Deg _____ Lat Min/Sec _____
Long Deg _____ Long Min/Sec _____
Tax Parcel No. (Required) 042017/064

CONSTRUCTION OR DECOMMISSION PROCEDURE
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information. (USE ADDITIONAL SHEETS IF NECESSARY.)

MATERIAL	FROM	TO
BROWN SILTY SAND	0	60
GRAY SILT + CLAY	60	85
GRAY FINE SILTY SAND	85	115
GRAY SILTY SAND + CLAY LAYERS	115	145
GRAY CLAY WITH SAND SEAMS WOOD, SHELL	145	170
GRAY SAND + GRVLS.	170	190
GRAY FINE-MED SAND WITH WOOD & SILT	190	207
GRAY-BROWN SILT WITH WOOD	207	247
BLACK SILTY SAND + GRVLS.	247	255
WATER BEARING BLACK FINE-COARSE SAND + GRVLS.	255	292
GRAY FINE SILTY SAND SOME GRVLS. WATER	292	316
BLK FINE-COARSE SAND SOME GRVLS. WATER	316	373
GRAY BLK FINE-MED SAND TRACE SILT WATER	373	428
GRAY FINE-COARSE SAND SOME GRVLS WATER	428	486
FINE GRAY SILTY SAND WITH SILT LAYERS	486	571
GRAY CLAY WITH GRVLS.	571	643
GRAY CLAY	643	710
GRAY FINE SILTY SAND WATER	710	828
GRAY MED SAND + GRVLS WATER BEARING	828	854
GRAY MED. SAND WATER BEARING	854	884
GRAY MED. SAND SOME GRVLS. WATER	884	921
GRAY FINE-MED SAND + GRVLS. WATER	921	938
GRAY FINE-COARSE SAND + GRVLS. COBB WATER	938	957
GRAY FINE-COARSE SAND WATER	957	972
GRAY MED. SAND WATER	972	999
GRAY FINE-MED SAND WATER	999	1005
CASING REFUSAL		

Start Date 11-1-2005 Completed Date 3-20-2009

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

[x] Driller [ ] Engineer [ ] Trainee Name (Print) RICHARD A. MILLER
Drilling Company BOART LONGYEAR
Driller/Engineer/Trainee Signature _____
Address P.O. BOX 1896
Driller or trainee License No. 1491
City, State, Zip MILTON, WA, 98354
IF TRAINEE: Driller's License No: _____
Driller's Signature: _____
Contractor's Registration No. BOARTLC941RA Date 3-20-2009

RECEIVED JUN 26 2009 WA State Department of Ecology (SWRO)

ECY 050-1-20 (Rev 4/07)

Ecology is an Equal Opportunity Employer

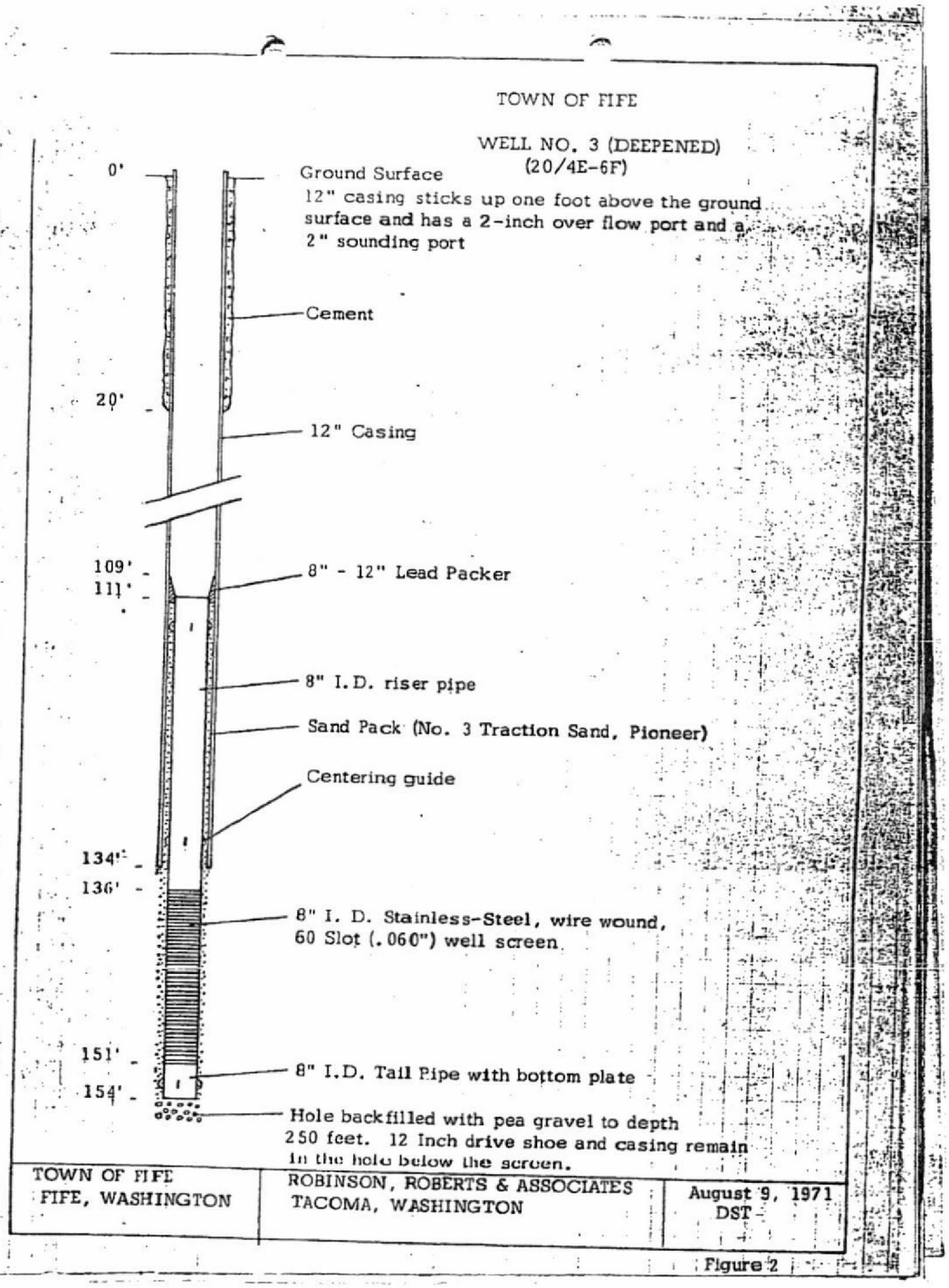
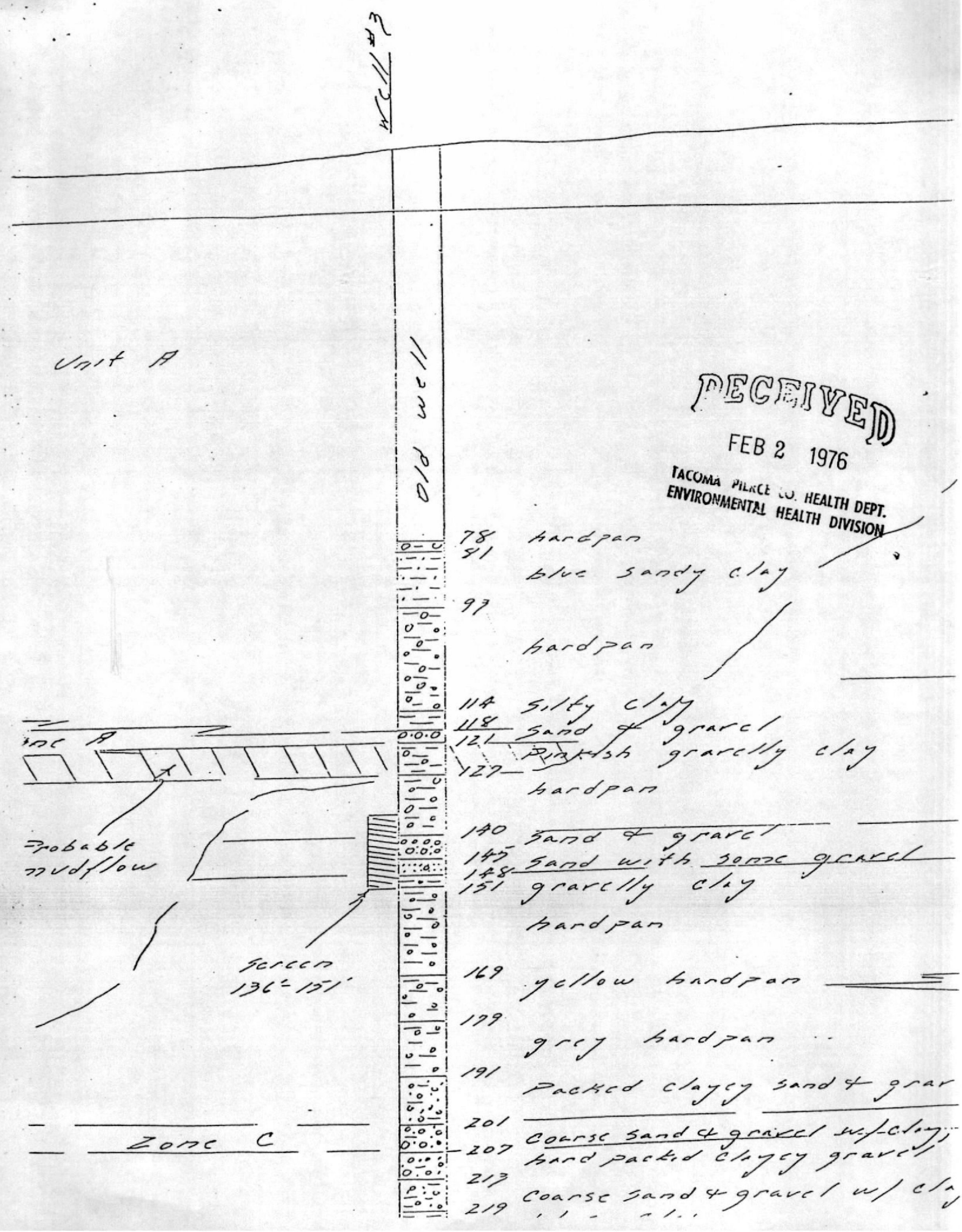


Figure 2



RECEIVED
FEB 2 1976
TACOMA PIERCE CO. HEALTH DEPT.
ENVIRONMENTAL HEALTH DIVISION

ROBINSON, ROBERTS & ASSOCIATES, INC.
GROUND WATER GEOLOGISTS
1315 SOUTH 56TH STREET
TACOMA, WASHINGTON 98408
TEL. GR 4-6831

AFFILIATED OFFICES
PORTLAND, OREGON
VANCOUVER, B.C.

TOWN OF FIFE

WELL NO. 3 (DEEPENED)

August 1971

INTRODUCTION

Deteriorating, well No. 3 was utilized as the starting point for the new well. Richardson Well Drilling Company pulled the screen, re-aligned the 12-inch casing and commenced drilling at depth 78 feet.

GEOLOGY

From the bottom of the old well to depth 81 feet cemented sand and gravel of the Salmon Springs formation was encountered. This is the base of the cliff forming formation in the adjacent bank. Below this to the bottom of the hole at 250 feet layered and lenticular silt, sandy silt, silty sand and gravel, sand, sand and gravel and peat of the Puyallup formation was encountered. A sand and gravel layer between depth 137 feet and 151 feet was utilized for the aquifer (Figure 1, Sieve Analysis of Aquifer Samples).

WELL CONSTRUCTION

The 12-inch casing was pulled back to depth 154 feet. The driller broke the casing in two and finally had to cut the drive shoe off (in order to pull it back). The hole was back filled with pea gravel to 154 feet.

An eight-inch diameter screen assembly consisting of 3 feet of tail pipe, 15 feet of stainless-steel, wire wound, 60-slot screen, and 25 feet of riser pipe with centering guides was placed with its base at depth 154 feet. Pioneer traction sand pack was added to the annular space as the 12-inch casing was pulled back exposing the screen to the aquifer (See Figure 2, Well Construction).

The well was developed for several days with a single disc mounted on

the end of the drilling tools. Sand was developed from the formation and replaced with the gravel pack. Development was terminated when sand entry was reduced to a minimal amount of three feet per hour. The gravel pack was replemished during the development.

PUMPING TEST

A six-inch turbine test pump was installed with the intake at depth 102 feet. On August 4, the well was pumped at rates of 136 gpm, 208 gpm, 268 gpm, and 340 gpm. Resulting drawdowns and specific capacities are shown on Figure 3.

The following day the well was pumped for five and one half hours at 400 gpm. This resulted in a drawdown of 99 feet below the static water level of six feet above ground surface, giving a specific capacity of 4.0 gpm per foot of drawdown. Water level recovered to ground surface five minutes after the pump was stopped.

Drawdown stabilized after 110 minutes of pumping at 400 gpm. Formation transmissibility is about 17,800 meinzer based upon the pumping test drawdown curve (See Figure 4, Pumping Test Drawdown Curve).

Water quality was analyzed in the field and again in the lab with the following results:

PH - 7.5
Chlorides - 15 ppm
Hardness - 80 ppm
Iron - .15 ppm

Water temperature is 51° F. A sample has been sent to the State Health Department for complete analysis.

The discharge was clear and sand free at the end of the pumping test.

RECOMMENDATIONS

This well is capable of producing 350 gpm good quality water on a sustained basis with adequate reserve. Drawdown at 350 gpm will be about 80 feet below ground surface. The pump intake should be placed just above the riser pipe and lead slip packer at about 108 feet below ground surface.

ROBINSON, ROBERTS & ASSOCIATES, INC.
Ground Water Geologists

By David S. Tillson
David S. Tillson

Pierce County Assessor-Treasurer's Office

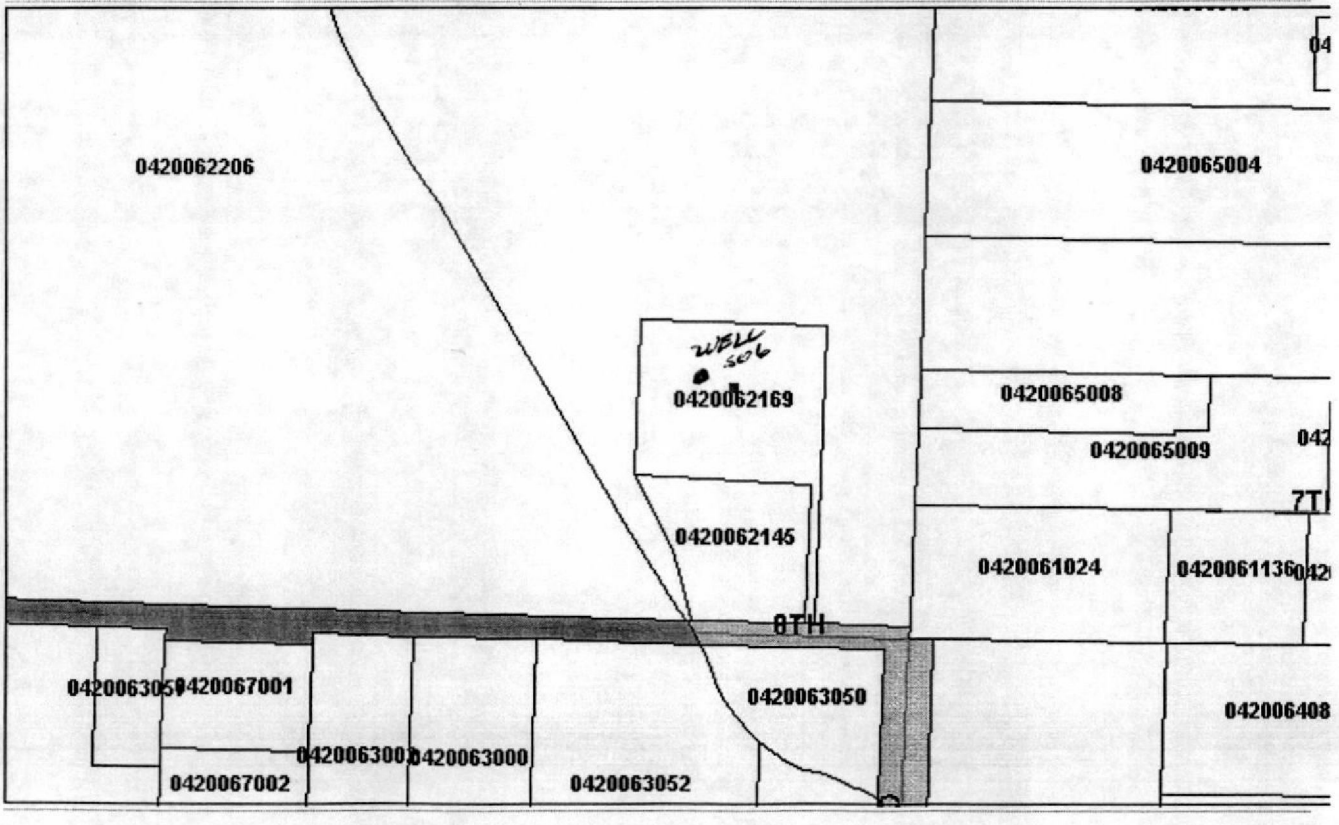
Parcel: R0420062169
Name: FIFE CITY OF
Site Address: OFF 8TH ST E & 62ND
Mailing Address: 3737 PACIFIC HWY E , FIFE WA 98424
Use Code: 4832 WATER TREATMENT PLANTS (PURIFICATION).
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Parcel Map | Recorded Data | Back to Search

Zoom Level: 5.0 Zoom

---North---

RTSQ: 04-20-06-2-4 **School Dist:** Fife



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

Tacoma-Pierce County
Health Department

Unique Well ID Number A E A 4 7 5
X Y Z 1 2 3

WELL TAGGING FORM

All shaded areas **must** be completed.

Date of Field Visit 7-9-98 By COCHRAN & BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 25050 N Source # SO 6

USGS Site Identification _____
Other

RECORD VERIFICATION

☑ Well Report available (*please attach*)
☐ Well Report not available
☐ Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name FIFE DEPT. OF PUBLIC WORKS

Street Address 3725 PACIFIC HWY E

City FIFE State WA. 98424

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address 8TH ST. E & 62ND AVE E
City _____ County PIERCE
T. 20 N. R. 04 E W.M. Sec. 06 NE ¼ of the SW ¼

Latitude N 47 ° 15 ' 3.54 "
Longitude W122 ° 20 ' 47.72 "
099

☑ GPS (raw data)
☑ GPS (corrected)
☐ Topographic Map
☐ Survey
☐ Computer Generated
☐ Other _____

Elevation at land surface _____ feet/meters (circle one)

☐ Digital Altimeter
☐ Topographic Map
☐ Other

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water right # Priority Date

Circle One: Application Permit Certificate Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 12" cased well in small pump house

Location of Well Identification Tag: on 12" casing

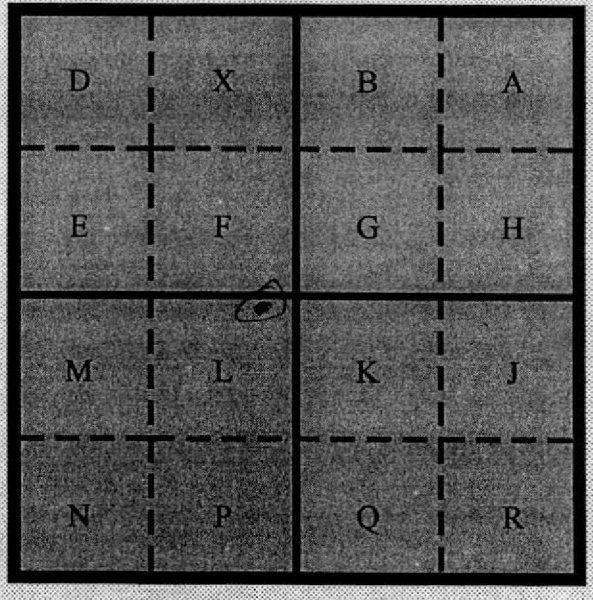
Was supplemental tag needed for ease of identifying well?

☑ NO ☐ YES

If yes, where was tag placed?

Scale 1:24,000 (1"=2,000')

Indicate the location of the well within the Section by drawing a dot at that point.



SECTION 06

TOWNSHIP 20

RANGE 04E

COMMENTS: _____

W

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG No. A.5857:C.4217-A

Date 6-7, 1962

Record by well driller

Source driller's record

Location: State of WASHINGTON

County Pierce

Area

Map

¼ ¼ sec. 6 T. 20 N., R. 4 E. W

Diagram of Section

Drilling Co. E. L. Kelley

Address Rt. 6, Box 671, Puyallup, Wash.

Method of Drilling Date 2-16, 1961

Owner Town of Fife

Address 2619 DavidCt. Pl. E, Tacoma 22

Land surface, datum ft. above / below

20/4E.6F

Well number

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)		
	Peaty soil	17	17
	Peat & fine sand mixed	7	24
	Fine sand mixed w/soft clay balls	6	30
	Coarse sand & gravel w/b	8	38
	Gray clay non-w/b	4	42
	Hardpan, boulders & grey clay	15	57
	PUMP TEST:		
	Dim. 6"x57'		
	SWL: 0 (2-16-61)		
	DD: 27'		
	Yield: 118 g.p.m.		
	Type & size of pump: 6" vertical turbine		
	Type & size of motor: 10 h.p. elec.		
	25 ft. recovery in 4½ min.		
	(over)		

Turn up

Sheet of sheets

Tacoma-Pierce County
Health Department

Unique Well ID Number A E A 4 7 4
X Y Z 1 2 3

WELL TAGGING FORM

All shaded areas **must** be completed.

Date of Field Visit 7-9-98 By COCHRAN & BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 25050 N Source # SO 1

USGS Site Identification _____
Other

RECORD VERIFICATION

☑ Well Report available (*please attach*)
☐ Well Report not available
☐ Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name FIFE DEPT. OF PUBLIC WORKS

Street Address 3725 PACIFIC HWY E

City FIFE State WA. 98424

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address 8 TH ST E & 62ND AVE
City _____ County PIERCE
T. 20 N. R. 04 E W.M. Sec. 06 NE ¼ of the SW ¼

Latitude N 47 ° 15 ' 3.55 "
Longitude W122 ° 20 ' 47.23 "
099

☑ GPS (raw data)
☑ GPS (corrected)
☐ Topographic Map
☐ Survey
☐ Computer Generated
☐ Other _____

Elevation at land surface _____ feet/meters (circle one)

☐ Digital Altimeter
☐ Topographic Map
☐ Other

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water right # Priority Date

Circle One: Application Permit Certificate Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 6" cased well, encapsulated in concrete with pump mounted on top

Location of Well Identification Tag: on the pump housing

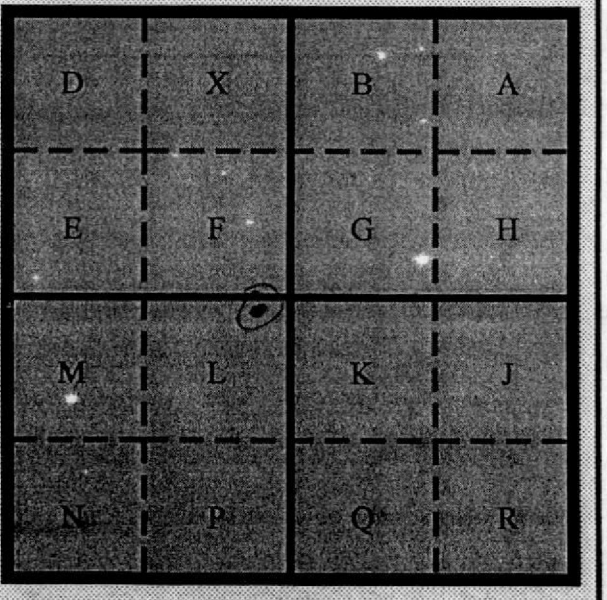
Was supplemental tag needed for ease of identifying well?

☑ NO ☐ YES

If yes, where was tag placed?

Scale 1:24,000 (1"=2,000')

Indicate the location of the well within the Section by drawing a dot at that point.



SECTION 06

TOWNSHIP 20

RANGE 04E

COMMENTS: _____

Pierce County Assessor-Treasurer's Office

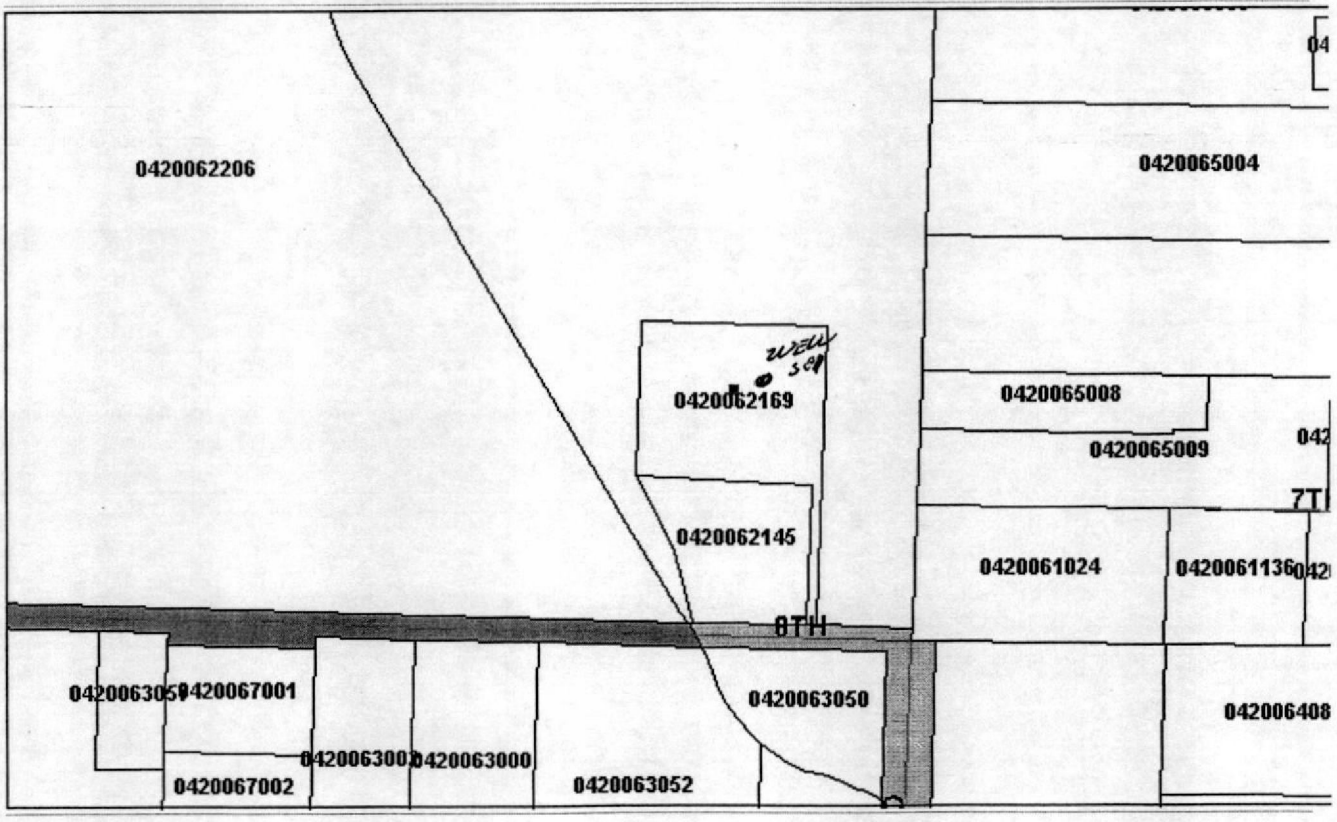
Parcel: R0420062169
Name: FIFE CITY OF
Site Address: OFF 8TH ST E & 62ND
Mailing Address: 3737 PACIFIC HWY E , FIFE WA 98424
Use Code: 4832 WATER TREATMENT PLANTS (PURIFICATION).
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Parcel Map | Recorded Data | Back to Search

Zoom Level: 5.0 Zoom

---North---

RTSQ: 04-20-06-2-4 **School Dist:** Fife



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG

Date -- , 19 Well #3 No. Appli. 708
Cert. 614-A

Record by Pete Sylte

Source Driller's Record

Location: State of WASHINGTON

County Pierce

Area

Map

Blk. 34 Original Town of Milton E.

~~SW 1/4 SE 1/4~~ Sec. 3 T. 20 N., R. 4 ~~W.~~

DIAGRAM OF SECTION

Drilling Co. Pete Sylte

Address 7428 So. Sheridan; Tacoma

Method of Drilling Date -- 19

Owner Town of Milton

Address Milton, Wash.

Land surface, datum ft. above / below

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Top soil	2	2
	Dry sand	10	12
	Dirty sand	20	32
	Coarse sand & some gravel (water)	40	72
	Fine sand	8	80
	Pump Test:		
	Dim: 80' x 10"		
	SWL: 7'		
	DD: 18'		
	Yield: 400 g.p.m.		
	Casing: 10" dia. from 0 to 80'		
	Perforations:		
	¼ by 6" 6 per ft. from 44 to 79ft.		

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

Turn up

Sheet ____ of ____ sheets

Well 12

WATER WELL REPORT

Ecology: Original & 1st copy - Ecology, 2nd copy - owner, 3rd copy - driller

Construction/Decommission ("x" in circle)
- (x) Construction
- ( ) Decommission *ORIGINAL CONSTRUCTION Notice of Intent Number* _____

CURRENT Notice of Intent No. W-137625

Unique Ecology Well ID Tag No. AGP 498

Water Right Permit No. Replacement for Wells #6 + #7 GW #4957-A GZ-24540C

Property Owner Name City of Milton

Well Street Address Public Works Garage

City Milton County: Pierce

Location SW 1/4 - 1/4 NE 1/4 Sec 5 Twn 20N R 4E EWM or WWM (circle one)

Lat/Long: (s,t,r still REQUIRED) Lat Deg 47° Lat Min/Sec 15' 02"

Long Deg 122° Long Min/Sec 19' 22"

Tax Parcel No. _____

PROPOSED USE: ☐ Domestic ☐ Industrial ☒ Municipal ☐ DeWater ☐ Irrigation ☐ Test Well ☐ Other _____

TYPE OF WORK: Owner's number of well (if more than one) _____

☒ New Well ☐ Reconditioned Method: ☐ Dug ☐ Bored ☐ Driven ☐ Deepened ☒ Cable ☐ Rotary ☐ Jetted

DIMENSIONS: Diameter of well 16 inches, drilled 180 ft. Depth of completed well _____ ft.

CONSTRUCTION DETAILS

Casing Installed: ☒ Welded 16" Diam. from 0 ft. to 180 ft.

☐ Liner installed _____" Diam. from _____ ft. to _____ ft.

☐ Threaded _____" Diam. from _____ ft. to _____ ft.

Perforations: ☐ Yes ☒ No

Type of perforator used _____

SIZE of perfs _____ in. by _____ in. and no. of perfs _____ from _____ ft. to _____ ft.

Screens: ☒ Yes ☐ No ☐ K-Pac Location _____

Manufacturer's Name Johnson

Type _____ Model No. _____

Diam. _____ Slot Size _____ from _____ ft. to _____ ft.

Diam. _____ Slot Size _____ from _____ ft. to _____ ft.

Gravel/Filter packed: ☒ Yes ☐ No ☐ Size of gravel/sand _____

Materials placed from _____ ft. to _____ ft.

Surface Seal: ☒ Yes ☐ No To what depth? 35 ft

aterials used in seal _____

Did any strata contain unusable water? ☐ Yes ☒ No

Type of water? _____ Depth of strata _____

Method of sealing strata off _____

PUMP: Manufacturer's Name _____

Type: _____ H.P. _____

WATER LEVELS: Land-surface elevation above mean sea level 28 ft.

Static level 42 ft. below top of well Date 7/1/02

Artesian pressure _____ lbs. per square inch Date _____

Artesian water is controlled by _____ (cap, valve, etc.)

WELL TESTS: Drawdown is amount water level is lowered below static level.

Was a pump test made? ☒ Yes ☐ No If yes, by whom? RJ

Yield: 1023 gal./min. with 32 ft. drawdown after 24 hrs.

Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.

Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.

Recovery data (time taken as zero when pump turned off)(water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
10 min	46.7	40	46.18	105	45.8
20	46.4	50	46.12	150	45.5
30	46.2	60	46.04	270	45.21

Date of test 7/1/02

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

Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.

Artesian flow _____ g.p.m. Date _____

Temperature of water 50 Was a chemical analysis made? ☒ Yes ☐ No

CONSTRUCTION OR DECOMMISSION PROCEDURE

Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information. Indicate all water encountered. (USE ADDITIONAL SHEETS IF NECESSARY.)

MATERIAL	FROM	TO
fill material & wood	0	5
Gray Silt bound sand & gravel some layering & tighter material	5	68 / 54
Brown Silt bound sand & Gravel	54	68
Brown Silt & grey sand with some gravel	68	92
grey/brown sand & Gravel fine to coarse sand wet	92	138
Fine to med sand grey some wood & mica	138	164
Gray Sticky Silty Clay	164	180

Start Date ~~7/1/02~~ 5/31/02 Completed Date 6/7/02

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

(x) Driller ☐ Engineer ☐ Trainee Name (Print) Randy Holt

Driller/Engineer/Trainee Signature Randy Holt

Driller or Trainee License No. 1099

Drilling Company Holt Drilling Inc

Address PO Box 1890

City, State, Zip Milton, Wa 98354

Contractor's Registration No HOLTDI 1360G Date 7/10/02

If trainee, licensed driller's Signature and License no. _____

WATER WELL REPORT

DEPARTMENT OF ECOLOGY
State of Washington

Type of Work:
☒ Construction
☐ Decommission ⟹ Original installation NOI No. _____

Proposed Use: ☐ Domestic ☐ Industrial ☒ Municipal ☐ Dewatering ☐ Irrigation ☐ Test Well ☒ Other replacement

Construction Type: ☒ New well ☐ Alteration ☐ Deepening ☐ Other _____

Method: ☐ Driven ☐ Jetted ☒ Cable Tool ☐ Dug ☐ Air- ☐ Mud-Rotary

Dimensions: Diameter of boring 16 in., to 175 ft.
Depth of completed well 174 ft.

Construction Details:

Casing	Liner	Diameter	From	To	Wall Thickness	Steel	PVC	Welded	Thread
☒	☐	20 in.	0	165	.375 in.	☒	☐	☒	☐
☒	☐	16 in.	+2.5	104	.375 in.	☒	☐	☒	☐
☐	☒	14 in.	20	104	.375 in.	☒	☐	☒	☐
☒	☐	12 in.	164	174	.375 in.	☒	☐	☒	☐

Perforations: ☐ Yes ☒ No Type of perforator used _____
No. of perforations _____ Size of perforations _____ in. by _____ in.
Perforated from _____ ft. to _____ ft. below ground surface

Screens: ☒ Yes ☐ No ☐ K-Packer ⟹ Depth _____ ft.
Manufacturer's Name Johnson
Type 304 stainless Model No. watermark
Diameter 12PS in. Slot size .040 in. from 104 ft. to 164 ft.
Diameter _____ in. Slot size _____ in. from _____ ft. to _____ ft.

Sand/Filter pack: ☒ Yes ☐ No Size of pack material 8-12 in.
Materials placed from 20 ft. to 175 ft.

Surface Seal: ☒ Yes ☐ No To what depth? 65 ft.
Material used in seal neat cement
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

Pump: Manufacturer's Name _____ Type: _____
H.P. _____ Pump intake depth: _____ ft. Designed flow rate: _____ gpm

Water Levels: Land-surface elevation above mean sea level 30 ft.
Stick-up of top of well casing 2.5 ft. above ground surface
Static water level 21 ft. below top of well casing Date 6-4-18
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (cap, valve, etc.)

Well Tests:
Was a pumping test performed? ☐ No ☒ Yes ⟹ by whom? Holt / RMN
Yield 900 gpm with 22 ft. drawdown after .75 hrs.
Yield 1200 gpm with 31 ft. drawdown after .75 hrs.
Yield 1520 gpm with 45 ft. drawdown after 23.5 hrs.

Recovery data (time = zero when pump is turned off – water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
1 m	30.11	5	25.53	10	24.35
30 m	23.30	60	22.77	90	22.48
2 hr	22.33	4 hr	21.99	12 hr.	21.66

Date of pumping test 5-30-18
Bailer test _____ gpm with _____ ft. drawdown after _____ hrs.
Air test _____ gpm with stem set at _____ ft. for _____ hrs. Date _____
Artesian flow _____ gpm
Temperature of water _____ ° F Was a chemical analysis made? ☒ Yes ☐ No

Notice of Intent No. WE30872
Unique Ecology Well ID Tag No. BLK472
Site Well Name (if more than one well): 10R
Water Right Permit/Certificate No. _____
Property Owner Name City of Milton714
Well Street Address 714 Kent Street
City Milton County Pierce
Tax Parcel No. _____
Was a variance approved for this well? ☐ Yes ☐ No
If yes, what was the variance for? _____

Location (see instructions on page 2): ☐ WWM or ☒ EWM
NE ¼-¼ of the NE ¼; Section 5 Township 20N Range 4
Latitude (Example: 47.12345) 47.25100
Longitude (Example: -120.12345) 122.32400

Driller's Log/Construction or Decommission Procedure
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information. Use additional sheets if necessary.

Material	From	To
brown silty sand-gravel, wood debris-fill	0	5
brown/gray silty sand,gravel,cobbles	5	15
gray silty cobbley sand,some wood	15	25
gray silty cobbley sand	25	37.5
brown silty sand, gravel,peat,wood	37.5	40
gray silty gravel, cobbles, some silt matrix	40	47
brown/gray silty sand, gravel, cobbles	47	53
gray silt sand, cobbles dense silt matrix-till	53	65
dark gray silty S&G, cobbles, dense silt matrix-till	65	79
gray coarse sand, cobbles	79	83
brown/gray med. sandy gravel, cobbles, with	83	
interbedded layers brown/orange silty sand		95
brown silty sandy gravel, cobbles, w.b.	95	105
brown silty sand, few gravels, few cobbles, w.b.	105	115
brown/gray coarse sand, some gravel, cobbles,	115	
layers brown dense silt/sand, w.b.		125
brown silt, some S&G	125	128
brown silty coarse sand, few gravels/cobble w.b.	128	164
brown silty fine sand	164	170
dark brown silty fine sand, wood	170	175

Start Date 3-26-18 Completed Date 6-4-18

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ PE – Print Name Ryan Meyers
Signature R Myers
License No. 2890
IF TRAINEE: Sponsor's License No.
Sponsor's Signature

Drilling Company Holt Services Inc.
Address Po Box 1659
City, State, Zip Milton WA 98354
Contractor's Registration No. HOLTSSI898JG Date 12-7-18

WATER WELL REPORT

DEPARTMENT OF ECOLOGY
State of Washington

Type of Work:
☒ Construction
☐ Decommission ⟹ Original installation NOI No. _____

Proposed Use: ☐ Domestic ☐ Industrial ☒ Municipal ☐ Dewatering ☐ Irrigation ☐ Test Well ☐ Other _____

Construction Type: ☒ New well ☐ Alteration ☐ Deepening ☐ Other _____

Method: ☐ Driven ☐ Jetted ☒ Cable Tool ☐ Dug ☐ Air- ☐ Mud-Rotary

Dimensions: Diameter of boring 12 in., to 530 ft.
Depth of completed well 521 ft.

Construction Details:

Casing	Liner	Diameter	From	To	Wall Thickness	Steel	PVC	Welded	Thread
☒	☐	16 in.	+1	325	.375 in.	☒	☐	☒	☐
☒	☐	12 in.	+2	483	.375 in.	☒	☐	☒	☐
☐	☒	10x8 in.	417	417.7	.375 in.	☒	☐	☒	☐
☐	☒	8 in.	417.7	480	.322 in.	☒	☐	☒	☐

Perforations: ☐ Yes ☒ No Type of perforator used _____
No. of perforations _____ Size of perforations _____ in. by _____ in.
Perforated from _____ ft. to _____ ft. below ground surface

Screens: ☒ Yes ☐ No ☐ K-Packer ⟹ Depth _____ ft.
Manufacturer's Name Johnson
Type stainless Model No. Freeflow
Diameter 8PS in. Slot size .060 in. from 480 ft. to 490 ft.
Diameter 8PS in. Slot size .060 in. from 495 ft. to 501 ft.

Sand/Filter pack: ☒ Yes ☐ No Size of pack material 6x9 in.
Materials placed from 417 ft. to 521 ft.

Surface Seal: ☒ Yes ☐ No To what depth? 40 ft.
Material used in seal high solids bentonite
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

Pump: Manufacturer's Name _____ Type: _____
H.P. _____ Pump intake depth: _____ ft. Designed flow rate: _____ gpm

Water Levels: Land-surface elevation above mean sea level 310 ft.
Stick-up of top of well casing 2 ft. above ground surface
Static water level 145.6 ft. below top of well casing Date 6-2-20
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (cap, valve, etc.)

Well Tests:
Was a pumping test performed? ☐ No ☒ Yes ⟹ by whom? driller
Yield 170 gpm with 184 ft. drawdown after 24 hrs.
Yield 80 gpm with 23 ft. drawdown after 0.25 hrs.
Yield 120 gpm with 89 ft. drawdown after 0.25 hrs.

Recovery data (time = zero when pump is turned off – water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
1 min	299.5	60 min	176.4	360 min	158.1
10	215.5	120	167.8	480	155.9
30	187.1	240	161.3	1440	149.1

Date of pumping test 6-2-20
Bailer test _____ gpm with _____ ft. drawdown after _____ hrs.
Air test _____ gpm with stem set at _____ ft. for _____ hrs. Date _____
Artesian flow _____ gpm
Temperature of water 49 °F Was a chemical analysis made? ☒ Yes ☐ No

Notice of Intent No. WE38358
Unique Ecology Well ID Tag No. BJE-750
Site Well Name (if more than one well): 5R
Water Right Permit/Certificate No. G2-05986C
Property Owner Name City of Milton
Well Street Address 600 19th. Ave.
City Milton County Pierce
Tax Parcel No. 6000000170
Was a variance approved for this well? ☑ Yes ☐ No
If yes, what was the variance for? Setback distances from property line and closed dumpsite

Location (see instructions on page 2): ☐ WWM or ☒ EWM
SE ¼-¼ of the NW ¼; Section 04 Township 20N Range 04E
Latitude (Example: 47.12345) 47.25246
Longitude (Example: -120.12345) -122.30889

Driller's Log/Construction or Decommission Procedure
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information. Use additional sheets if necessary.

Material	From	To
asphalt/crushrock base	0	1
brown silty sandy gravel, cobbles	1	35
brown silty med. sand, few gravels	35	58
brown silty sandy gravel, cobbles, trace binder	58	68
brown silt	68	76
blue/gray clay	76	104
brown silty sandy gravel, cobbles, trace binder	104	
semi loose, w.b.		134
gray silty sandy gravel, cobbles, tight, w.b.	134	148
gray till	148	155
brown till large cobble, boulders	155	208
reddish brown till	208	220
iron stained silty sandy gravel, cobbles,	220	
some binder, semi loose w.b.		245
brown till	245	285
brown till cobbly, few boulders	285	375
gray till	375	419
gray silt, wood fragments	419	483
interbedded silts, sand, gravel, cobbles w.b.	483	489
gray silt, wood	489	494
interbedded silts sand gtavel cobble, w.b.	494	501
gray silt, wood	501	507
interbedded silts sand gravel cobble, w.b.	507	513
gray clay, gravel	513	530
8" blank .322 wall	501	507
8PS screen .060" slot	507	512
8" tailpipe .322 wall	512	521
12" casing remnant/drive shoe	520	530

Start Date 3-16-20 Completed Date 6-4-20

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☑ PE – Print Name Michael Ramlo
Signature _____
License No. 1199
IF TRAINEE: Sponsor's License No.
Sponsor's Signature

Drilling Company Holt Services Inc.
Address PO Box 1659
City, State, Zip Milton, WA 98354
Contractor's Registration No. HOLTSSI898JG Date 6-29-20

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 57/04-32P
Permit No.

(1) OWNER: Name Homer M McDowell & Clearence S Ralph Address 1503 17th Ave. Milton, WA. 98354

(2) LOCATION OF WELL: County King SE ¼ SW ¼ Sec 32 T. 21 N., R. 4E W.M.
Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☒ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 16-12-8 inches.
Drilled 110 ft. Depth of completed well 108 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: See attached drawings Diam. from ft. to ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: 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.

Screens: Yes ☒ No ☐ SEE ATTACHED DRAWINGS
Manufacturer's Name UOP Johnson
Type Stainless Steel Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☒ No ☐ Size of gravel SEE ATTACHED DRAWINGS #8 silica
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 24 ft.
Material used in seal Cement
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level 4.8 above gr. ft. below top of well Date 8-2-84
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) 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.
" See attached pumping log by JR Carr/ assoc's " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test 8-2-84
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☒ No ☐

(10) WELL LOG:
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
SEE ATTACHED LOG		

Work started 6-19, 1984 Completed 8-13, 1984

WELL DRILLER'S STATEMENT:

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

NAME STOICAN DRILLING CO. Inc.
(Person, firm, or corporation) (Type or print)

Address Sequim, Port Orchard & Eatonville, Wa.

[Signed] Thomas L Ketenley (Well Driller)

License No. 0240 Date Aug 31, 1984

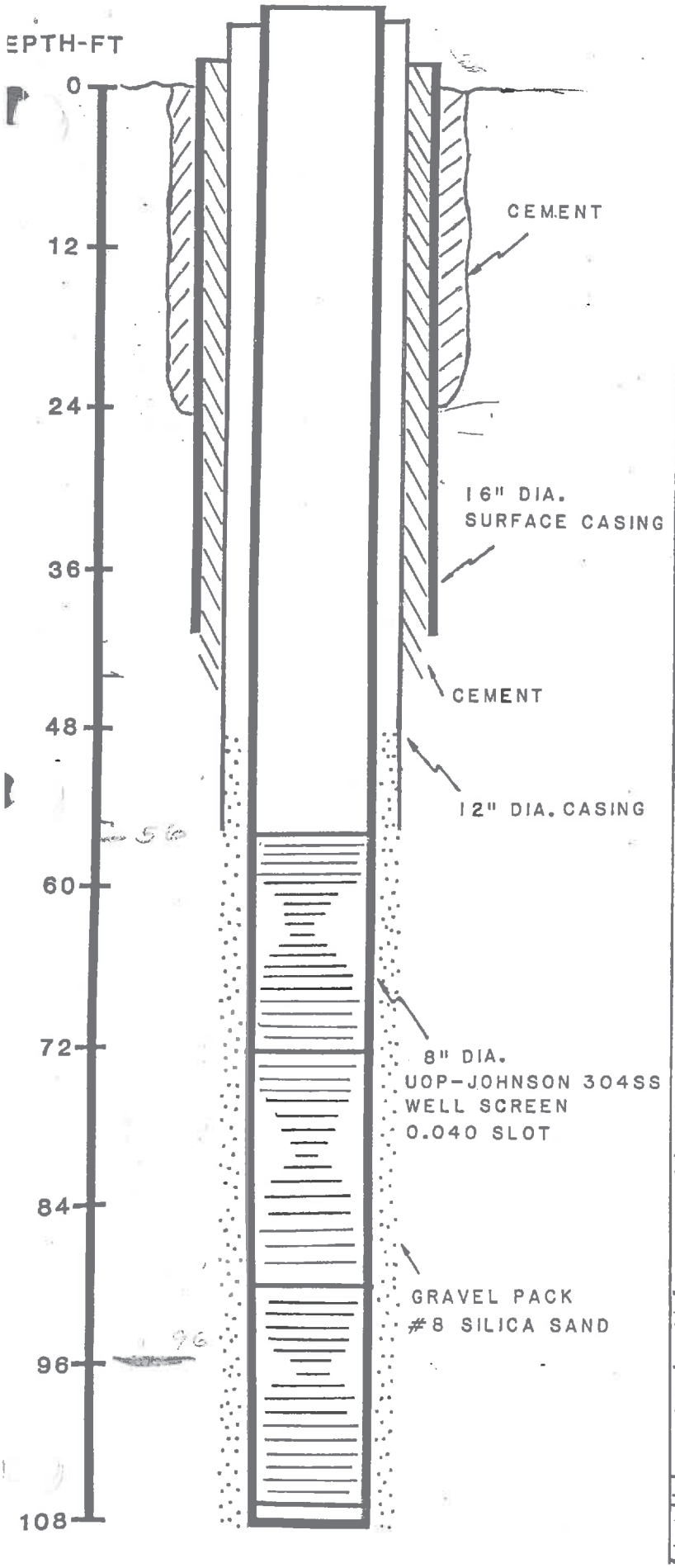
(USE ADDITIONAL SHEETS IF NECESSARY)

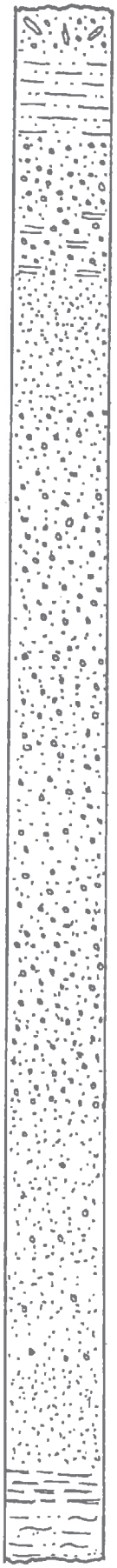
ECY 050-1-20

CLARENCE RALPH / HOMER MCDOWELL/MILTON WELL
WELL CONSTRUCTION AND GEOLOGIC LOG

STOICAN DRLG.

FIGURE 2





0-3	FILL
3-9	PEAT
9-14	GRAVEL
14-19	GRAVEL W/CLAY BINDER
19-28	BROWN SAND, WB (WATER BEARING)
28-54	GREY SAND & GRAVEL,WE
54-62	SAND & GRAVEL, RED STAINED,WB
62-78	GREY SAND & GRAVEL,WE
78-96	SAND,SOME GRAVEL, RED STAINED, WB.
96-104	MED-FINE SAND, WB
104-106	GREY CLAY
106-110	SILTY FINE SAND,CLAY

J.R.CARR/ASSOC.

21-4E-32P

WATER WELL REPORT

ECOLOGY Original & 1st copy - Ecology, 2nd copy - owner, 3rd copy - driller

Construction/Decommission ("x" in circle) 175556

(X) Construction

( ) Decommission *ORIGINAL CONSTRUCTION Notice of Intent Number*_____

CURRENT
Notice of Intent No. W 166300

Unique Ecology Well ID Tag No. AIC6 806

Water Right Permit No. G1 24927 P

Property Owner Name City of Milton

Well Street Address _____

City Milton County: KING

Location SE 1/4- 1/4 SW 1/4 Sec 32 Twn 21 R 4E EWM or WWM *circle one*

Lat/Long: (s,t,r still REQUIRED) Lat Deg _____ Lat Min/Sec _____ Long Deg _____ Long Min/Sec _____

Tax Parcel No. _____

PROPOSED USE: ☐ Domestic ☐ Industrial ☑ Municipal ☐ DeWater ☐ Irrigation ☐ Test Well ☐ Other_____

TYPE OF WORK: Owner's number of well (if more than one)_____

☑ New Well ☐ Reconditioned *Method:* ☐ Dug ☐ Bored ☐ Driven ☐ Deepened ☑ Cable ☐ Rotary ☐ Jetted

DIMENSIONS: Diameter of well 20 inches, drilled 200 ft. Depth of completed well 95 ft.

CONSTRUCTION DETAILS

Casing Installed: ☑ Welded 20" Diam. from +2 AG ft. to 49 ft.
☐ Liner installed _____" Diam. from _____ ft. to _____ ft.
☐ Threaded _____" Diam. from _____ ft. to _____ ft.

Perforations: ☐ Yes ☑ No
Type of perforator used _____
SIZE of perfs _____ in. by _____ in. and no. of perfs _____ from _____ ft. to _____ ft.

Screens: ☑ Yes ☐ No ☐ K-Pac Location HWL
Manufacturer's Name _____
Type STAINLESS STEEL Model No. _____
Diam. 14 Slot Size 30 from 50 ft. to 80 ft.
Diam. _____ Slot Size _____ from _____ ft. to _____ ft.

Gravel/Filter packed: ☑ Yes ☐ No ☐ Size of gravel/sand 8 x 12
Materials placed from 2 ft. to 95 ft.

Surface Seal: ☑ Yes ☐ No To what depth? 22 ft
Materials used in seal Bentonite
Did any strata contain unusable water? ☐ Yes ☑ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

WATER LEVELS: Land-surface elevation above mean sea level 47 ft.
Static level 15.5 ft. below top of well Date 2-25-05
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (cap, valve, etc.)

WELL TESTS: Drawdown is amount water level is lowered below static level.
Was a pump test made? ☑ Yes ☐ No If yes, by whom? R&N
Yield: 300 gal./min. with 23 ft. drawdown after 24 hrs.
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.

Recovery data (time taken as zero when pump turned off)(water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
1	24	45	16.89		
20	17.12	60	16.86		
30	16.94	90	16.78		

Date of test 2-25-05
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water 51 Was a chemical analysis made? ☑ Yes ☐ No

CONSTRUCTION OR DECOMMISSION PROCEDURE

Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information. Indicate all water encountered. (USE ADDITIONAL SHEETS IF NECESSARY.)

MATERIAL	FROM	TO
Brown-Gray Clay & Silt Fill	0	7
Brown Silt bourd Sand & Gravel	7	22
Brown Silty SAND with occ gravel	22	35
Grey-Brown Sand & Gravel	35	51
Red-brown Silty Sand & Gravel	51	52
Brown Silty Sand & Gravel	52	65
Brown-Grey Fine to MED SAND	65	71
Grey Fine to MED Sand with occ Gravel	71	86
Grey Very Fine SAND	86	116
Grey Silty Fine Sand with some Clay	116	122
Grey Silty Clay	122	130
Grey Clay	130	144
Grey Silty clay layered with fine sandy silty clay	144	200

RECEIVED
MAY 26 2005
DEPT OF ECOLOGY

R&N

Start Date 4/05 Completed Date 6/05

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

(X) Driller ☐ Engineer ☐ Trainee Name (Print) Richard Miller

Driller/Engineer/Trainee Signature Richard Miller

Driller or Trainee License No. 1691

Drilling Company Holt Drilling / Boart Longyear

Address PO Box 1840

City, State, Zip Milton Wa 98354

Contractor's Registration No. BOARTLC055P2 Date 6/27/05

If trainee, licensed driller's Signature and License no. _____

Ecology is an Equal Opportunity Employer. ECY 050-1-20 (Rev 4/01)

WATER WELL REPORT

DEPARTMENT OF ECOLOGY State of Washington

Type of Work:
☒ Construction
☐ Decommission ⟹ Original installation NOI No. _____

Notice of Intent No. WE51651
Unique Ecology Well ID Tag No. BPC-851
Site Well Name (if more than one well): _____
Water Right Permit/Certificate No. _____
Property Owner Name City Of Milton
Well Street Address 9732 18th St Ct E
City Milton County Pierce
Tax Parcel No. 0420091133
Was a variance approved for this well? ☐ Yes ☒ No
If yes, what was the variance for? _____

Proposed Use: ☐ Domestic ☐ Industrial ☒ Municipal ☐ Dewatering ☐ Irrigation ☐ Test Well ☐ Other _____

Construction Type: ☒ New well ☐ Alteration ☐ Deepening ☐ Other _____

Method: ☐ Driven ☐ Jetted ☐ Cable Tool ☐ Dug ☒ Air- ☐ Mud-Rotary

Dimensions: Diameter of boring 16/12 in., to 958 ft.
Depth of completed well 953.5 ft.

Construction Details:

Casing	Liner	Diameter	From	To	Wall Thickness	Steel	PVC	Welded	Thread
☒	☐	12 in.	+3	757	.375 in.	☒	☐	☒	☐
☐	☐	____ in.	____	____	____ in.	☐	☐	☐	☐
☐	☐	____ in.	____	____	____ in.	☐	☐	☐	☐
☐	☐	____ in.	____	____	____ in.	☐	☐	☐	☐

Perforations: ☐ Yes ☒ No Type of perforator used _____
No. of perforations ____ Size of perforations ____ in. by ____ in.
Perforated from ____ ft. to ____ ft. below ground surface

Screens: ☒ Yes ☐ No ☐ K-Packer ⟹ Depth 660 ft.
Manufacturer's Name Roscoe Moss
Type 304Stainless Pipe size Model No. 100ft total spread out.
Diameter 8 5/8 in. Slot size .030 in. from 783 ft. to 943 ft.
Diameter 8 5/8 in. Slot size Sump in. from 943 ft. to 953 ft.

Sand/Filter pack: ☒ Yes ☐ No Size of pack material 8x16 in.
Materials placed from 662 ft. to 955 ft.

Surface Seal: ☒ Yes ☐ No To what depth? 757 ft.
Material used in seal Neat Cement
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

Pump: Manufacturer's Name _____ Type: _____
H.P. ____ Pump intake depth: ____ ft. Designed flow rate: ____ gpm

Water Levels: Land-surface elevation above mean sea level ____ ft.
Stick-up of top of well casing 3 ft. above ground surface
Static water level 298.5 ft. below top of well casing Date 6-5-2023
Artesian pressure ____ lbs. per square inch Date _____
Artesian water is controlled by _____ (cap, valve, etc.)

Well Tests:
Was a pumping test performed? ☐ No ☒ Yes ⟹ by whom? TP@D
Yield 800 gpm with 129.1 ft. drawdown after 24 hrs.
Yield ____ gpm with ____ ft. drawdown after ____ hrs.
Yield ____ gpm with ____ ft. drawdown after ____ hrs.

Recovery data (time = zero when pump is turned off – water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
15	327.1				
30	317.5				
60					

Date of pumping test 6-6-2023
Bailer test ____ gpm with ____ ft. drawdown after ____ hrs.
Air test 300+ gpm with stem set at 500 ft. for 4+ hrs. Date _____
Artesian flow ____ gpm
Temperature of water ____ ° F Was a chemical analysis made? ☒ Yes ☐ No

Location (see instructions on page 2): ☐ WWM or ☒ EWM
NE ¼-¼ of the NE ¼; Section 9 Township 20 Range 4
Latitude (Example: 47.12345) 47.23955
Longitude (Example: -120.12345) 122.29900

Driller's Log/Construction or Decommission Procedure
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information. Use additional sheets if necessary.

Material	From	To
Damp brown silty medium sand/gravel. Wood	0	11
debris.		
Grey brown clayey medium gravel.	11	35
Brown silty med/course sand/gravel/cobbles.	35	75
Blue grey clayey med/course gravel.	75	108
Dense brown clayey medium gravel.	108	120
Brown silty medium/course sand/gravel/cobbles	120	180
Orangish brown silty fine/medium sand/gravels.	180	188
Brown silty loose course gravel. Occasional	188	272
thin tan silt lenses.		
Light Brown silty fine sandy clay. Occasional	272	307
course gravels.		
Brown silty course sand/gravel. Mud loss.	307	340
Brown silty medium sand/gravel/smoother.	340	376
Brown silty course gravel/cobbles/binding. Loss.	376	445
Grey silty fine /medium sand/gravel.	445	455
Grey silty clay.	455	473
Grey fine sandy clay. Trace medium gravels.	473	543
Grey silty course gravel. Binding. Slow loss.	543	652
Wood at 637.		
Blue green clayey lightly cemented medium	652	661
sand/gravel.		
Light blue fine silty sandy clay.	661	667
Light blue grey clayey med/course sand/gravel.	667	675
Olive green silty clay. Organics.	675	681
Dense light blue clay with tin fine silty sand lens	681	686
Grey fine sandy silt. Slow loss.	686	708
Light blue clayey fine/medium sand/gravel.	708	723
Greenish grey fine sandy clay.	723	743

Start Date 2-02-2023 Completed Date 6-8-2023

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ PE – Print Name Matt Call
Signature
License No. 2467
IF TRAINEE: Sponsor's License No.
Sponsor's Signature

Drilling Company Tacoma Pump @ Drilling
Address 30316 Mountain Hwy
City, State, Zip Graham wa 98338
Contractor's Registration No. TACOMPD203PF Date

WATER WELL/DEWATERING SYSTEM
CONSTRUCTION PROCESS

After a well is constructed, modified or decommissioned, a well report must be filed within 30 days to the Department of Ecology. Well reports are filled out by the person who constructed the well. This is typically a Washington State licensed well operator.

The following form is used for ***water wells and dewatering systems only***. Below are the instructions for filling out a water well report. After the form has been printed and filled out, it should be mailed to the Department of Ecology Regional Office responsible for the area the well work was conducted.

INSTRUCTIONS

Type of Work – This form is used for BOTH construction and decommissioning of a well. Please check the appropriate box. For decommissioning – enter the original construction Notice of Intent No. here (if available).
Dimensions – Nominal diameter of uncased boring (drill bit size) and total depth drilled. Depth of completed well may be different from total depth drilled.
Construction Details – Choose either *Casing* or *Liner*. Enter nominal diameter and depth range. Check the type of material and whether it was welded or threaded. A description of mechanically locked liners may be added to the Driller's Log/Construction Procedures section.
Perforations – Well casing perforations; read each statement and answer appropriately.
Screens – Well screens and screen assembly information. A K-packer is designed to provide a sand tight seal between a well screen assembly and casing.
Sand/Filter Pack – Read each statement and answer appropriately.
Surface Seal – Read each statement and answer accurately.
Water Levels – *Casing stick-up* means the height, in feet, the well casing rises above ground surface (preferably measured to the hundredth [ie. 2.34 ft]). *Static water level* is the depth, in feet, to the water surface inside the well or boring (preferably measured to the hundredth [ie. 6.78 ft]). A *static* water level implies the measurement is not disturbed by pumping or drilling, or a nearby well that is pumping. Include the date the measurement was taken. Artesian pressure is the gauge reading of a flowing artesian well with the valve closed (shut-in pressure), reported in psi.
Well Tests – A pumping test is the process of pumping groundwater out of a well and measuring the water level response through time. This process is the best way to determine the efficiency of the well. *Drawdown* is the amount the water level is lowered below static level when pumping. A *bailer test* is a common way to test well efficiency while cable-tool drilling, whereby a tool called a bailer is used to pull up and dump water onto the ground, simulating pumping. An *air test* is commonly used when drilling an air-rotary well to estimate well production, since an air compressor is always on hand.
Notice of Intent No. – The number issued by the Department of Ecology for tracking purposes (e.g., W123456). Should start with a W, A or D for this form.
Unique Ecology Well ID Tag No. – The number issued by the Department of Ecology that is stamped on a metal tag that is attached to the actual well. (e.g., AAA-000)
Site Well Name (if more than one well): If there is more than one well on the site, you may identify each well with a site well name or number and place it in this space. This is different from the Unique Ecology Well ID Tag No.
Water Right Permit/Certificate No. – If the well will use more than 5,000 gallons per day or irrigate more than ½ acre of land, you must have a water right. This number should be written here.
Property Owner Name – The name of the property owner.
Well Street Address – The physical address where the well is located. (Note: NOT the mailing address.)
City – City where the well is located.
County – County where the well is located.
Tax Parcel No. – County tax parcel number - enter *ROW* for right-of-way.
Was a variance approved? – A variance request is submitted to a regional well coordinator if the regulations cannot be met. Explain the request here.
Location – The quarter-quarter, quarter, section, township and range (TRS) of the well. For example: the SE ¼-¼ <u>of the</u> NE ¼, S10, T20N, R05 – and then check box for <u>W</u>est or <u>E</u>ast of the <u>W</u>illamette <u>M</u>eridian [*WWM/EWM]* for range. The web-based State Well Report Viewer in *map view* is one of the best places to determine well location using the TRS system.
Latitude/Longitude – Using a GPS or web-based coordinates, enter the latitude and longitude of the well using the WGS84 coordinate system. Please input to the fifth decimal place.
Driller's Log/Construction or Decommission Procedure – Describe the geologic materials encountered while boring. Also, decommissioning procedures, additional location notes, or unusual aspects of the project can be written here.
Well Construction Certification – Read the statements; enter the Driller and Drilling Company information; sign and date in the blanks provided. A sponsor is the licensed driller that is responsible for a trainee according to 173-162 WAC.

WATER WELL REPORT

DEPARTMENT OF ECOLOGY
State of Washington

Type of Work:
☐ Construction
☐ Decommission ⟹ Original installation NOI No. _____

Notice of Intent No. WE51651
Unique Ecology Well ID Tag No. BPC-851
Site Well Name (if more than one well): _____
Water Right Permit/Certificate No. _____
Property Owner Name _____
Well Street Address _____
City _____ County _____
Tax Parcel No. _____
Was a variance approved for this well? ☐ Yes ☐ No
If yes, what was the variance for? _____

Proposed Use: ☐ Domestic ☐ Industrial ☐ Municipal ☐ Dewatering ☐ Irrigation ☐ Test Well ☐ Other _____

Construction Type: ☐ New well ☐ Alteration ☐ Deepening ☐ Other _____

Method: ☐ Driven ☐ Jetted ☐ Cable Tool ☐ Dug ☐ Air- ☐ Mud-Rotary

Dimensions: Diameter of boring _____ in., to _____ ft.
Depth of completed well _____ ft.

Construction Details:

Casing	Liner	Diameter	From	To	Wall Thickness	Steel	PVC	Welded	Thread
☐	☐	_____ in.	_____	_____	_____ in.	☐	☐	☐	☐
☐	☐	_____ in.	_____	_____	_____ in.	☐	☐	☐	☐
☐	☐	_____ in.	_____	_____	_____ in.	☐	☐	☐	☐
☐	☐	_____ in.	_____	_____	_____ in.	☐	☐	☐	☐

Perforations: ☐ Yes ☐ No Type of perforator used _____
No. of perforations _____ Size of perforations _____ in. by _____ in.
Perforated from _____ ft. to _____ ft. below ground surface

Screens: ☐ Yes ☐ No ☐ K-Packer ⟹ Depth _____ ft.
Manufacturer's Name _____
Type _____ Model No. _____
Diameter _____ in. Slot size _____ in. from _____ ft. to _____ ft.
Diameter _____ in. Slot size _____ in. from _____ ft. to _____ ft.

Sand/Filter pack: ☐ Yes ☐ No Size of pack material _____ in.
Materials placed from _____ ft. to _____ ft.

Surface Seal: ☐ Yes ☐ No To what depth? _____ ft.
Material used in seal _____
Did any strata contain unusable water? ☐ Yes ☐ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

Pump: Manufacturer's Name _____ Type: _____
H.P. _____ Pump intake depth: _____ ft. Designed flow rate: _____ gpm

Water Levels: Land-surface elevation above mean sea level _____ ft.
Stick-up of top of well casing _____ ft. above ground surface
Static water level _____ ft. below top of well casing Date _____
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (cap, valve, etc.)

Well Tests:
Was a pumping test performed? ☐ No ☐ Yes ⟹ by whom? _____
Yield _____ gpm with _____ ft. drawdown after _____ hrs.
Yield _____ gpm with _____ ft. drawdown after _____ hrs.
Yield _____ gpm with _____ ft. drawdown after _____ hrs.

Recovery data (time = zero when pump is turned off – water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of pumping test _____
Bailer test _____ gpm with _____ ft. drawdown after _____ hrs.
Air test _____ gpm with stem set at _____ ft. for _____ hrs. Date _____
Artesian flow _____ gpm
Temperature of water _____ ° F Was a chemical analysis made? ☐ Yes ☐ No

Location (see instructions on page 2): ☐ WWM or ☐ EWM
_____ ¼-¼ of the _____ ¼; Section _____ Township _____ Range _____
Latitude (Example: 47.12345) _____
Longitude (Example: -120.12345) _____

Driller's Log/Construction or Decommission Procedure
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information. Use additional sheets if necessary.

Material	From	To
Dense Light blue silty fine sandy clay.	743	757
Grey silty fine sand/ trace fine gravel.	757	785
Dense lavander grey fine sandy silt. Clay.	785	820
Looser brown silty fine sand, trace fine gravels.	820	834
Light grey brown clay.	834	840
Dense lav grey silty fine/med sand/gravel.	840	844
Grey silty medium/course sand/gravel. Loss.	844	862
Light brown clay. wood, organics.	862	865
Light brown silty fine/medium sand. Wood.	865	880
Light grey silty clay. Wood.	880	885
Tan silt.	885	905
Lavander fine silty sandy clay. Trace med gravel.	905	910
Dense grey fine sandy silt.	910	915
Dense brown silty medium gravel. loss.	915	925
White slightly welded medium sand. Ash tuft.	925	931
Dense Grey fine sandy silt.	931	940
Tan silt. Wood.	940	945
Dense Brown silt. Wood.	945	949
Blue green fine sandy clay.	949	955
Light brown silty clay.	955	958

Start Date _____ Completed Date _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☐ Driller ☐ Trainee ☐ PE – Print Name _____ Drilling Company _____
Signature _____ Address _____
License No. _____ City, State, Zip _____
IF TRAINEE: Sponsor's License No. _____ Contractor's
Sponsor's Signature _____ Registration No. _____ Date _____

WATER WELL/DEWATERING SYSTEM
CONSTRUCTION PROCESS

After a well is constructed, modified or decommissioned, a well report must be filed within 30 days to the Department of Ecology. Well reports are filled out by the person who constructed the well. This is typically a Washington State licensed well operator.

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INSTRUCTIONS

Type of Work – This form is used for BOTH construction and decommissioning of a well. Please check the appropriate box. For decommissioning – enter the original construction Notice of Intent No. here (if available).
Dimensions – Nominal diameter of uncased boring (drill bit size) and total depth drilled. Depth of completed well may be different from total depth drilled.
Construction Details – Choose either *Casing* or *Liner*. Enter nominal diameter and depth range. Check the type of material and whether it was welded or threaded. A description of mechanically locked liners may be added to the Driller's Log/Construction Procedures section.
Perforations – Well casing perforations; read each statement and answer appropriately.
Screens – Well screens and screen assembly information. A K-packer is designed to provide a sand tight seal between a well screen assembly and casing.
Sand/Filter Pack – Read each statement and answer appropriately.
Surface Seal – Read each statement and answer accurately.
Water Levels – *Casing stick-up* means the height, in feet, the well casing rises above ground surface (preferably measured to the hundredth [ie. 2.34 ft]). *Static water level* is the depth, in feet, to the water surface inside the well or boring (preferably measured to the hundredth [ie. 6.78 ft]). A *static* water level implies the measurement is not disturbed by pumping or drilling, or a nearby well that is pumping. Include the date the measurement was taken. Artesian pressure is the gauge reading of a flowing artesian well with the valve closed (shut-in pressure), reported in psi.
Well Tests – A pumping test is the process of pumping groundwater out of a well and measuring the water level response through time. This process is the best way to determine the efficiency of the well. *Drawdown* is the amount the water level is lowered below static level when pumping. A *bailer test* is a common way to test well efficiency while cable-tool drilling, whereby a tool called a bailer is used to pull up and dump water onto the ground, simulating pumping. An *air test* is commonly used when drilling an air-rotary well to estimate well production, since an air compressor is always on hand.
Notice of Intent No. – The number issued by the Department of Ecology for tracking purposes (e.g., W123456). Should start with a W, A or D for this form.
Unique Ecology Well ID Tag No. – The number issued by the Department of Ecology that is stamped on a metal tag that is attached to the actual well. (e.g., AAA-000)
Site Well Name (if more than one well): If there is more than one well on the site, you may identify each well with a site well name or number and place it in this space. This is different from the Unique Ecology Well ID Tag No.
Water Right Permit/Certificate No. – If the well will use more than 5,000 gallons per day or irrigate more than ½ acre of land, you must have a water right. This number should be written here.
Property Owner Name – The name of the property owner.
Well Street Address – The physical address where the well is located. (Note: NOT the mailing address.)
City – City where the well is located.
County – County where the well is located.
Tax Parcel No. – County tax parcel number - enter *ROW* for right-of-way.
Was a variance approved? – A variance request is submitted to a regional well coordinator if the regulations cannot be met. Explain the request here.
Location – The quarter-quarter, quarter, section, township and range (TRS) of the well. For example: the SE ¼-¼ <u>of the</u> NE ¼, S10, T20N, R05 – and then check box for <u>W</u>est or <u>E</u>ast of the <u>W</u>illamette <u>M</u>eridian [*WWM/EWM]* for range. The web-based State Well Report Viewer in *map view* is one of the best places to determine well location using the TRS system.
Latitude/Longitude – Using a GPS or web-based coordinates, enter the latitude and longitude of the well using the WGS84 coordinate system. Please input to the fifth decimal place.
Driller's Log/Construction or Decommission Procedure – Describe the geologic materials encountered while boring. Also, decommissioning procedures, additional location notes, or unusual aspects of the project can be written here.
Well Construction Certification – Read the statements; enter the Driller and Drilling Company information; sign and date in the blanks provided. A sponsor is the licensed driller that is responsible for a trainee according to 173-162 WAC.

509

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

RECEIVED SEP 16 1991

Start Card No. 040173

Water Right Permit No. _____

(1) OWNER: Name CITY OF PUYALLUP Address 218 PIONEER, PUYALLUP, WN

(2) LOCATION OF WELL: County PIERCE SW ¼ SW ¼ Sec. 32 T. 20 N., R. 4E W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 96TH STREET TANK SITE

(3) PROPOSED USE: ☐ Domestic ☐ Irrigation ☐ DeWater ☐ Industrial ☒ Test Well ☐ Municipal ☐ Other

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned ☐ New well ☒ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☐ Rotary ☒ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 12 inches. Drilled 294 feet. Depth of completed well 289 ft.

(6) CONSTRUCTION DETAILS:

Casing Installed: 12 " Diam. from +2 ft. to 275 ft.
Welded ☒ Liner installed ☐ Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.

Perforations: 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.

Screens: Yes ☒ No ☐
Manufacturer's Name UOP JOHNSON
Type 304 STAINLESS Model No. _____
Diam. 10" Slot size .125" from 271 ft. to 287 ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal CEMENT GROUT
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name NA
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level ~ 305 ft.
Static level 210.3 ft. below top of well Date 8/11/91
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? HOLT + RAN
Yield: 1266 gal./min. with 10 ft. drawdown after 72 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
5 MIN	213.6	3 days	210.6		
15 MIN	213.5				
1 HOUR	213.2				

Date of test 8/14/91

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water 48°F Was a chemical analysis made? Yes ☒ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
BROWN SILTY SAND	0	11
BROWN SILTY CLAY AND GRAVEL	11	60
BROWN SAND AND GRAVEL	60	68
BROWN SILTY SAND AND GRAVEL	68	71
SAND AND GRAVEL	71	75
BROWN SAND AND GRAVEL	75	122
BROWN SANDY SILT	122	136
BROWN SILTY SAND	136	158
GRAY SILT WITH PEAT	158	178
MEDIUM BROWN SAND	178	195
BROWN SAND AND GRAVEL	195	206
BROWN SAND	206	209
GRAY SILT	209	220
BROWN SAND AND GRAVEL	220	291
GRAY CLAY	291	

Work started 5/28/91, 19. Completed 8/27, 1991

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME HOLT DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 10621 TODD ROAD EAST

(Signed) _____ (WELL DRILLER) License No. 1099

Contractor's Registration No. HOLTDI*13606 Date 9-6, 1991

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329- 3

Pierce County Assessor-Treasurer's Office

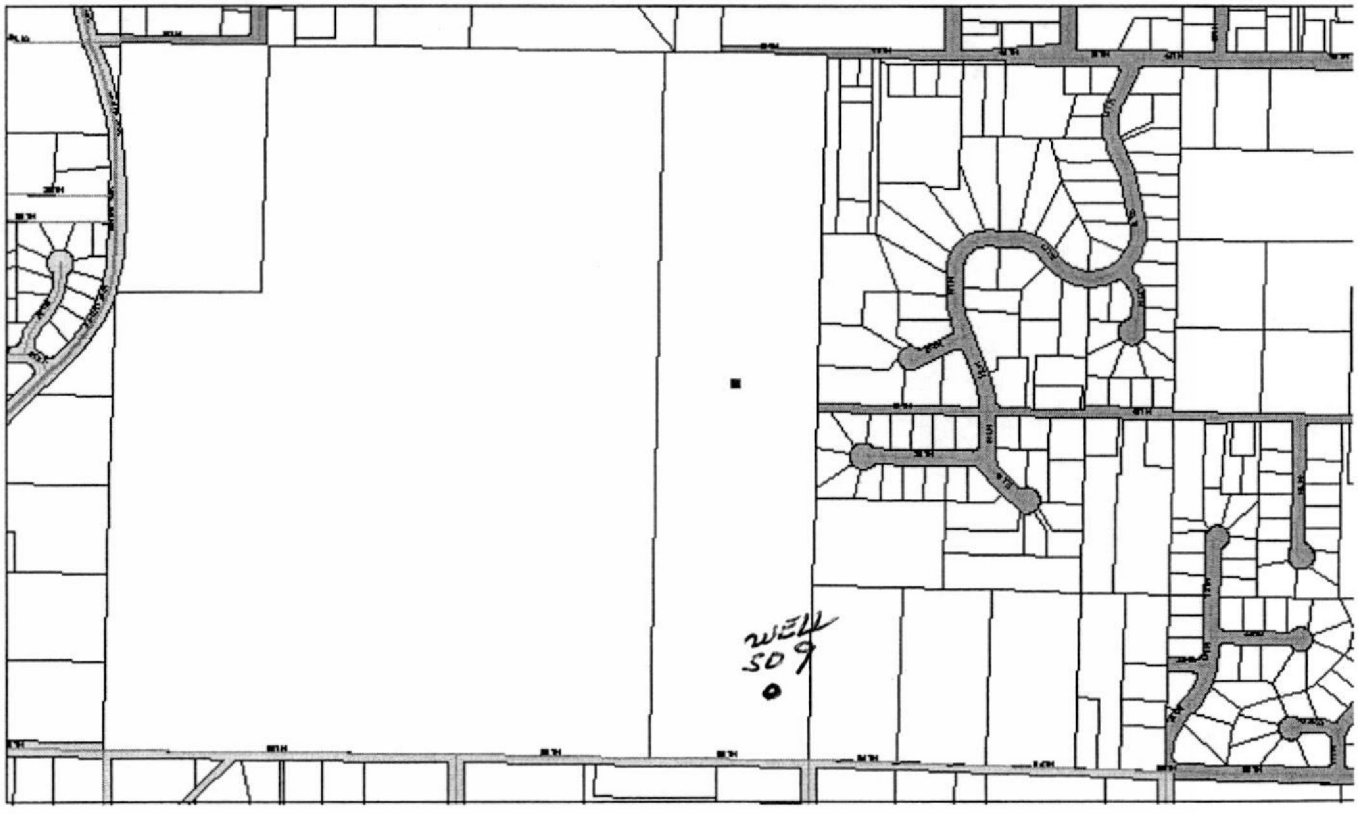
Parcel: R0420324001 Jan-09-2001, 03:26 PM
Name: PUYALLUP CITY OF
Site Address: 92ND TO 96TH AND FRUITLAND AVE
Mailing Address: 218 W PIONEER , PUYALLUP WA 98371
Use Code: 6800 EDUCATIONAL SERVICES
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Parcel Map | Recorded Data | Back to Search

Zoom Level: 15.0 Zoom

---North---

RTSQ: 04-20-32-4-4 **School Dist:** Puyallup



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

45292

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNIQUE WELL I.D. NUMBER A C A 5 2 1
X Y Z 1 2 3

WELL TAGGING FORM

Date of Field Visit 5-28-98 By COCHRAN & BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 700504 Source Number SO 9

USGS Site Identification _____

RECORD VERIFICATION

- ☑ Well Report available *(please attach)*
- ☐ Well Report not available
- ☐ Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name City of PUYALLUP

Street address 1100 39TH AVE SE,

City PUYALLUP State WA. 98374

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address 96th AND FRUITLAND AVE

City _____ County PIERCE

T. 20 N. R. 04 E W.M. Sec. 32 SE ¼ of the SE ¼

Latitude N47 ° 10 ' 15.20 "

Longitude W122 ° 18 ' 50.20 "
093

- ☑ GPS (raw data)
- ☐ GPS (corrected)
- ☐ Topographic Map
- ☐ Survey
- ☐ Computer generated
- ☐ Other _____

Elevation at land surface _____ feet/meters *(circle one)*

- ☐ Digital Altimeter
- ☐ Topographic Map
- ☐ Other _____

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water Right # _____ Priority Date _____

Circle one: Application Permit Certificate Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 12" Cased Well in well house

Location of Well Identification Tag: on pipe label

Was Supplemental Tag needed for ease of identifying well?

☑ NO ☐ YES

If yes, where was tag placed? _____

Scale 1:24,000 (1" = 2,000')

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Indicate the location of the well within the Section by drawing a dot at that point.

SECTION 32

COMMENTS: _____

Please attach this form to the Well Report and submit it to the Department of Ecology Water Resources Program Headquarters, Well Identification Program, P.O. Box 47600, Olympia, WA 98504-7600

A14

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
DIVISION OF WATER RESOURCES

WELL LOG

Record by Driller
Source Well Report

Location: State of WASHINGTON
County Pierce
Area –
Map –
SE¼ SE¼ NE¼ sec. 32 T. 20 N., R. 4 E.
Drilling Co. Gray & Osborne
Address 1844 Westlake N. Seattle Wa 98109
Method of Drilling ____ Date ____, 19____
Owner City of Puyallup
Address City Hall, Puyallup Wa. 98371
Land surface, datum 317 ft. above / below M.S.L.
SWL: 30' Date 20 Dec., 1956 Dims: 16"&12" x 170'

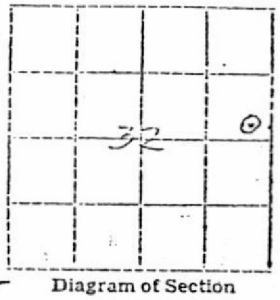


Diagram of Section

20/4-32A
File number

Correlation	Material	From (feet)	To (feet)
	Municipal		
	Clay - sand, fine & peat	0'	23'
	Sand, clay, gravel	23'	36'
	Sand & gravel	36'	46'
	Sand, glassy & gravel	46	63'
	Sand, fine	63	73'
	Gravel	73'	74'
	Sand, fine - clay, gravel	74	100'
	Sand, clay & gravel	100	107'
	Sand, heavy - gravel, lg. wl trace of clay	107	115'
	Sand, coarse, gravel & clay	115'	120'
	Sand coarse & gravel	120'	165'
	Clay	165'	170'
	Casing: 12" (new)	135'	165'

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

Turn up

Sheet ____ of ____ sheets

WELL LOG.—Continued No...../...../.....

CORRELATION	MATERIAL	From (feet)	To (feet)
	Depth forward		
	Casing: 16"	0	135'
	Perforations: '	135	165'
	Pump: Vertical Turbine	100 HP	
	Well Test. 1360 gpm 90' DD @ 12 hrs		
	Artesian Flow 240 gpm		
	30 April 1953		

S. F. No. 7449—OS—12-65.

Pierce County Assessor-Treasurer's Office

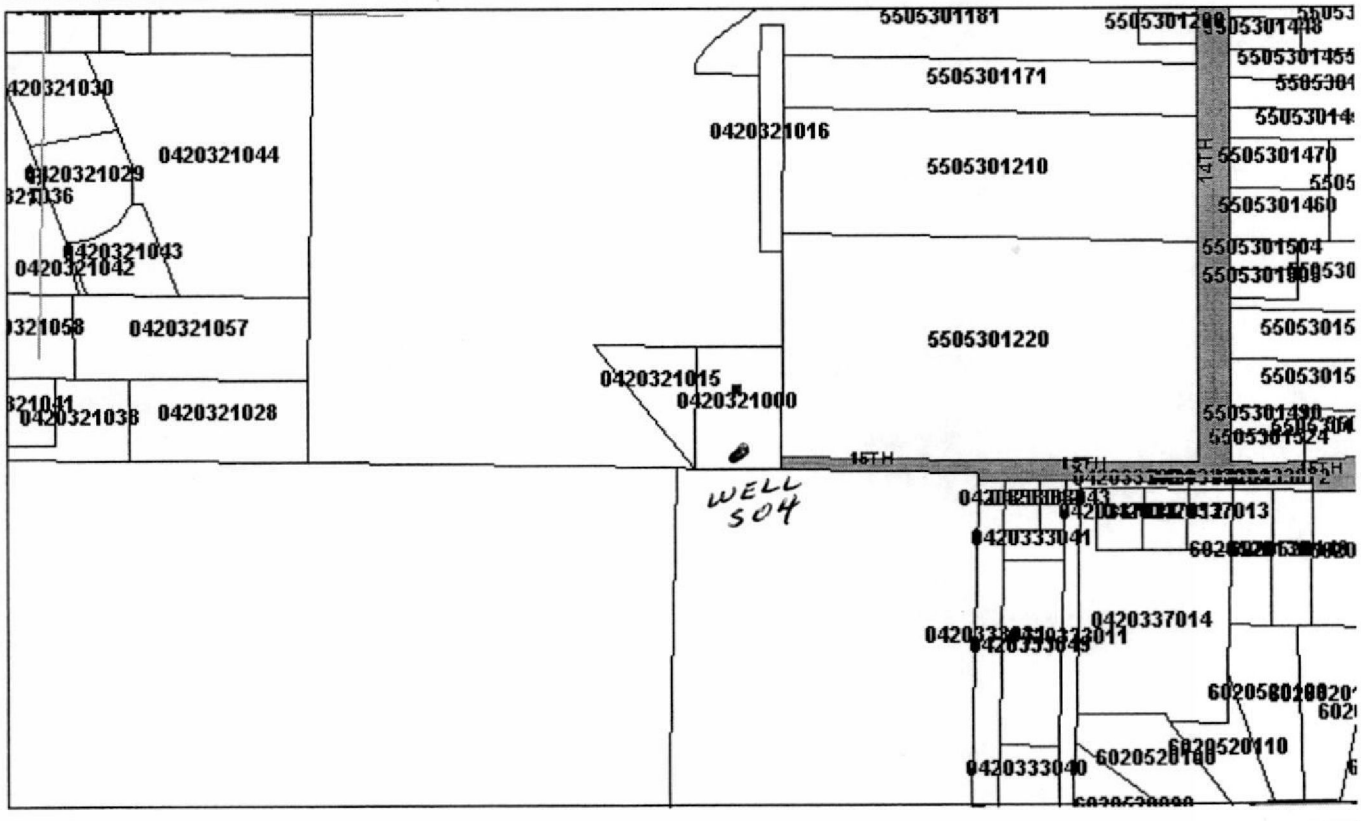
Parcel: R0420321000 Jan-09-2001, 03:12 PM
Name: PUYALLUP CITY OF
Site Address: 15TH AVE SW
Mailing Address: 218 W PIONEER , PUYALLUP WA 98371
Use Code: 8421 FISH HATCHERIES.
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Building Characteristics | Parcel Map | Recorded Data | Back to S

Zoom Level: 8.0 Zoom

---North---

RTSQ: 04-20-32-1-4 **School Dist:** Puyallup



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

275877

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNIQUE WELL I.D. NUMBER A C A 5 1 3
X Y Z 1 2 3

WELL TAGGING FORM

Date of Field Visit 5-28-98 By COCHRAN & BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 700504 Source Number SO 4

USGS Site Identification _____

RECORD VERIFICATION

- [x] Well Report available *(please attach)*
- [ ] Well Report not available
- [ ] Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name City of Puyallup

Street address 1100 39TH AVE. S.E.

City Puyallup State WA. 98374

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address 92ND to 96TH AND FRUITLAND

City _____ County PIERCE

T. 20 N. R. 04 E W.M. Sec. 32 NE ¼ of the SE ¼

Latitude N 47 ° 10 ' 38.93 "

Longitude W 122 ° 18 ' 55.80 "
096

- [x] GPS (raw data)
- [x] GPS (corrected)
- [ ] Topographic Map
- [ ] Survey
- [ ] Computer generated
- [ ] Other _____

Elevation at land surface _____ feet/meters *(circle one)*

- [ ] Digital Altimeter
- [ ] Topographic Map
- [ ] Other _____

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water Right # _____ Priority Date _____

Circle one: Application Permit Certificate Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 18" Cased well next to pump house

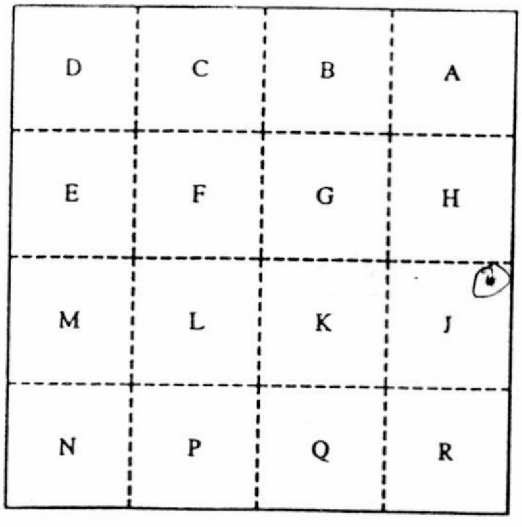
Location of Well Identification Tag: on casing

Was Supplemental Tag needed for ease of identifying well?

☑ NO ☐ YES

If yes, where was tag placed? _____

Scale 1:24,000 (1"=2,000')



Indicate the location of the well within the Section by drawing a dot at that point.

SECTION 32

COMMENTS: _____

Please attach this form to the Well Report and submit it to the Department of Ecology Water Resources Program Headquarters, Well Identification Program, P.O. Box 47600, Olympia, WA 98504-7600

Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 040173

Water Right Permit No. G-227960

(1) OWNER: Name CITY OF PUYALLUP Address 218 W PIONEER, PUYALLUP 98371

(2) LOCATION OF WELL: County PIERCE SE ¼ NW ¼ Sec 2 T. 19 N. R. 4E W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) FOREST GREEN BLVD & CHEROKEE BLVD (SE CORNER)

(3) PROPOSED USE: ☐ Domestic ☐ Irrigation ☐ DeWater ☐ Industrial ☐ Test Well ☒ Municipal ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
Abandoned ☐ New well ☒ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☒ Rotary ☐ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 12 - 6 inches. Drilled 624 feet. Depth of completed well 623 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 12" Diam. from 0 ft. to 422 ft.
Welded ☒ Liner installed ☒ Threaded ☐ 6" Diam. from 413 ft. to 623 ft.
_____" Diam. from _____ ft. to _____ ft.

Perforations: 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.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☒ No ☐ Size of gravel PEA
Gravel placed from 475 ft. to 413 ft.

Surface seal: Yes ☒ No ☐ To what depth? 18' ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level 410 ft.
Static level 301 ft. below top of well Date 5-13-91
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.))

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? R+N
Yield: 250 gal./min. with 72 ft. drawdown after 24 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
5M	312.9	60M	308.8	325M	306.0
10M	312.3	120M	307.4		

Date of test 5-8-91

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water 50° F Was a chemical analysis made? Yes ☒ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
TOPSOIL, ROCKS, COBBLES	0	2
SILTY SAND + GRVL	2	15
SILTY SAND + GRVL, COBBLES	15	21
SILTY SAND, GRVL, COBBLES, H_2O	21	42
SILTY SAND + GRVL	42	47
BROWN SAND + GRVL	47	68
GREY CLAY W/ INTERBEDDED SILTY BROWN SAND	68	80
SILTY SAND + GRVL	80	83
DRY SILT, SAND + GRAVEL	83	95
BROWN SILTY SAND + GRVL	95	131
GREY SILTY SAND + GRVL	131	137
BROWN SILTY SAND, GRVL, COBBLES	137	170
GREY SILTBOUND SAND, GRVL, COBB	170	183
BROWN SILTY SAND, GRVL, COBBLES	183	236
SILTBOUND SAND, GRVL, COBBLES	236	239
F. TO M. SILTY SAND, DRY	239	257
COARSE CLEANER SAND	257	276
SILTY SAND, FEW SML GRVLS	276	303
SILTBOUND SAND, GRVL, COBBLES	303	309
SILTBOUND SAND, GRVL	309	325
SILTBOUND SND, GRVL, SOME H_2O	325	338
BROWN SANDY SILT	338	353
GREY SILTBOUND GRAVELS	353	372
SILTBOUND SAND + GRVL	372	379
LAYERED SILT, SAND, GRVL, H_2O	379	409
MUDFLOW - CLAYBOUND ANGULAR DARK GRAVELS	409	422
LAYERED SILT, SAND, GRVL, H_2O	422	452
BROWN SAND, GRVL, COBBLES	452	467
SILTY F. TO C. SAND, SOME GRVL	467	486
SILTY SAND, FEW GRVL, H_2O	486	512
WHITE-GREY ASH DEPOSIT	512	516

Work started 1-28-91, 19. Completed 4-19-91, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME _____ (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address _____

(Signed) _____ (WELL DRILLER) License No. _____

Contractor's Registration No. _____ Date _____, 19____

CONTINUED ON NEXT PAGE

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329- 3

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

15 JUL 91

Start Card No. 040173

Water Right Permit No. G-227960

(1) **OWNER:** Name CITY OF PUYALLUP Address

(2) **LOCATION OF WELL:** County SE ¼ NW ¼ Sec 2 T 19 N., R 4E W.M.

(2a) **STREET ADDDRESS OF WELL** (or nearest address)

(3) **PROPOSED USE:** ☐ Domestic ☐ Irrigation ☐ DeWater ☐ Industrial ☐ Test Well ☐ Municipal ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one)

Abandoned ☐ New well ☐ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☐ Rotary ☐ Bored ☐ Driven ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well inches.

Drilled feet. Depth of completed well ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: " Diam. from ft. to ft.

Welded ☐ Liner installed ☐ Threaded ☐ " Diam. from ft. to ft.

" Diam. from ft. to ft.

Perforations: 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.

Screens: Yes ☐ No ☐

Manufacturer's Name

Type Model No.

Diam. Slot size from ft. to ft.

Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☐ Size of gravel

Gravel placed from ft. to ft.

Surface seal: Yes ☐ No ☐ To what depth? ft.

Material used in seal

Did any strata contain unusable water? Yes ☐ No ☐

Type of water? Depth of strata

Method of sealing strata off

(7) **PUMP:** Manufacturer's Name

Type: H.P.

(8) **WATER LEVELS:** Land-surface elevation above mean sea level ft.

Static level ft. below top of well Date

Artesian pressure lbs. per square inch Date

Artesian water is controlled by (Cap, valve, etc.))

(9) **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.

" " " "

" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test

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

Airtest gal./min. with stem set at ft. for hrs.

Artesian flow g.p.m. Date

Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) **WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION**

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
SILTY F-M SAND, FEW GRVL	516	522
SILTBOUND SAND + GRVL	522	529
SILTY SAND, FEW GRVL	529	535
SILTBOUND SAND, GRVL, COBBLES	535	606
M-C, SAND, SILT, GRVL	606	609
LAYERED SILT, SAND, GRVL	609	624
H_2O	535	624

CONTINUED FROM PAGE 1

Work started 1-25-91, 19. Completed 4-19-91, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Holt Drilling Inc (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 10621 Todd Rd E

(Signed) (WELL DRILLER) License No. 1099

Contractor's Registration No. HOLTDI*13606 Date 6-25, 1991

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329- 3

13

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG

No. A.6342

Date 8-2, 1962

Record by well driller

Source driller's record

Location: State of WASHINGTON

County Pierce

Area

Map

¼ ¼ sec. 34 T. 20N., R. 4 E. ~~W~~

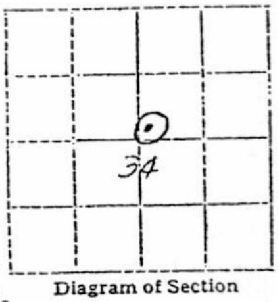


Diagram of Section

Drilling Co. Robinson & Roberts

Address 1315 S. 59th, Tacoma 8, Wash.

Method of Drilling Date May 21, 1962

Owner City of Puyallup, Wash.

Address

Land surface, datum ft. above / below

File number 20/4E-34G

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Hardpan	40	40
	Sand, gravel, clay	15	55
	Silty clay	10	65
	Sand, gravel, clay	20	85
	Cemented gravel	69	154
	Sand, gravel	3	157
	Sand, gravel, clay (tight)	17	174
	Cemented gravel	14	188
	Sand, gravel, clay	4	192
	Cemented gravel	18	210
	Sand, gravel (llose)	13	223
	Clay	3	226
	Sand, gravel (loose)	8	234
	Cemented gravel	14	248
	Blue clay	7	255
	Sand, gravel (loose)	10	265
	Sand, gravel, clay	15	280
	Silty sand, few boulders	4	284

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

Turn up (over)

Sheet ... of ... sheets

WELL LOG.—Continued No...../.....

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Depth forward	———	284
	Sand, gravel, clay	10	294
	Sand, some gravel	33	327
	Silty clay	8	335
	Sand, gravel (tight)	14	349
	Sand, gravel	18	367
	Clay peat	5	372
	Sand, gravel (silty)	50	422
	Sand, gravel (loose)	14	436
	Cemented gravel	7	443
	Sand, gravel boulders	2	445
	Sand, gravel (tight)	10	455
	Cemented gravel	7	462
	Sand, gravel	8	470
	Cemented gravel	7	477
	Sand, clay	3	480
	Sand, cemented layers	13	493
	Sand, gravel	17	510
	Cemented gravel	3	513
	Sandy clay	4	517
	Sand, gravel	3	520
	Sandy clay	15	535
	Sand, gravel (loose)	5	540
	Sand, gravel (tight)	10	550
	Cemented gravel	7	557
	Sand, gravel	2	559
	Cemented gravel	6	565
	Sand, gravel (loose)	8	573
	PUMP TEST:		
	Dim. 16-12"x573		
	SWL: 31 feet (5-21062)		
	DD: 124 ft.		
	Yield: 510 g.p.m.		
	Water Temp. 53°		
	Fast recovery.		

S. F. No. 7449—OS—6-61—2M.

(over)

Screened 563-573

Pierce County Assessor-Treasurer's Office

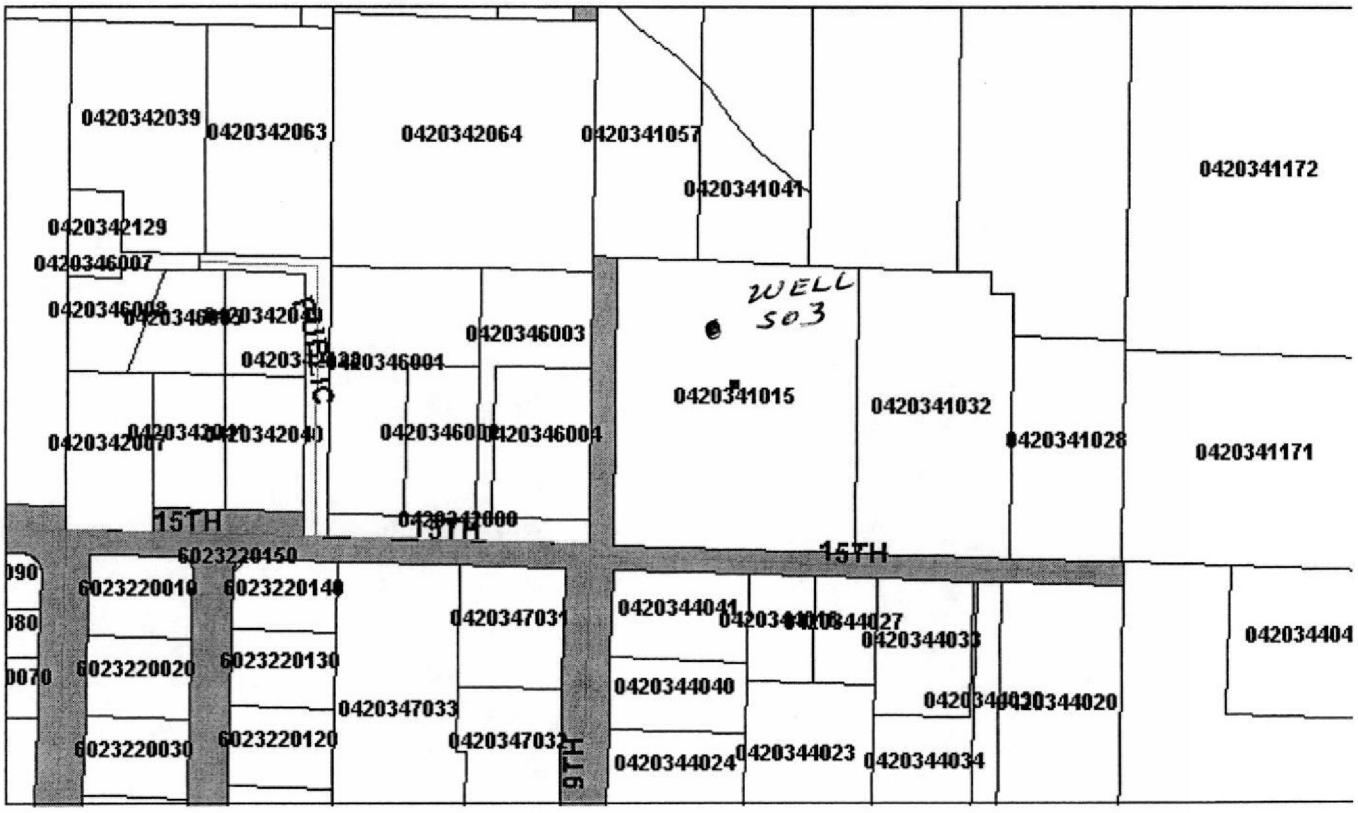
Parcel: R0420341015 Jan-09-2001, 03:12 PM
Name: PUYALLUP CITY OF
Site Address:
Mailing Address: 218 W PIONEER , PUYALLUP WA 98371
Use Code: 9600 VACANT LAND - RESIDENTIAL.
Mh Code:

Click One | Tax & Assessment | Land Characteristics | Building Characteristics | Parcel Map | Recorded Data | Back to S

Zoom Level: 5.0 Zoom

---North---

RTSQ: 04-20-34-1-3 **School Dist:** Puyallup



Pierce County Assessor-Treasurer
2401 South 35th St Room 142
Tacoma, Washington 98409
(253)798-6111 or Fax (253)798-3142

45297

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNIQUE WELL I.D. NUMBER A E F 2 0 2
X Y Z 1 2 3

WELL TAGGING FORM

Date of Field Visit 5-28-98 By COCHRAN + BLUNDELL

ADDITIONAL WELL IDENTIFIERS

Department of Health System ID Number 70050H Source Number SO 3

USGS Site Identification _____

RECORD VERIFICATION

☑ Well Report available *(please attach)*
☐ Well Report not available
☐ Verification inconclusive

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

Name CITY OF PUYALLUP

Street address 1100 39TH AVE S.E

City PUYALLUP State WA. 98374

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address _____

City _____ County PIERCE

T. 20 N. R. 04 E W.M. Sec. 34 SW ¼ of the NE ¼

Latitude N47 ° 10 ' 41.94 "
Longitude W122 ° 16 ' 51.58 "
092

☑ GPS (raw data)
☑ GPS (corrected)
☐ Topographic Map
☐ Survey
☐ Computer generated
☐ Other _____

Elevation at land surface _____ feet/meters *(circle one)*

☐ Digital Altimeter
☐ Topographic Map
☐ Other _____

Additional information, if available:

☐ Location marked on topographic map *(please attach)*

☐ Location marked on air photo *(please attach)*

Water Right # 9-4324A Priority Date _____

Circle one: Application Permit Certificate Claim Exempt

WELL CHARACTERISTICS

Physical Description of Well (size of casing, type of well, housing, etc.): 16" Cased well in well house

Location of Well Identification Tag: on 6" pipe lateral next to pump

Was Supplemental Tag needed for ease of identifying well?

☑ NO ☐ YES

If yes, where was tag placed? _____

Scale 1:24,000 (1"=2,000')

D	C	B	A
E	F	G (6)	H
M	L	K	J
N	P	Q	R

Indicate the location of the well within the Section by drawing a dot at that point.

SECTION 34

COMMENTS: _____

Please attach this form to the Well Report and submit it to the Department of Ecology Water Resources Program Headquarters, Well Identification Program, P.O. Box 47600, Olympia, WA 98504-7600

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION AND DEVELOPMENT Appli. #6452

WELL LOG No...../.....-.....

Date July 10, 1964

Record by Driller

Source Driller's Record

Location: State of WASHINGTON

County Pierce

Area

Map

NE ¼ NE ¼ sec. 3 T. 19 N., R. 4 E. E. W.

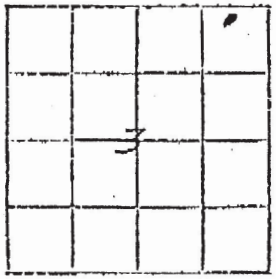


Diagram of Section

Drilling Co. L. R. Gaudio

Address 601 Le-Lou-Wa N.E. Tacoma, Washington

Method of Drilling Date Jan. 9, 1964

Owner City of Puyallup

Address P.O. Box 458, Puyallup, Washington

Land surface, datum ft. above / below

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

	Municipal supply		
	Clay, gravel and boulders	17	17
	Cemented clay and gravel	163	180
	Gravel and clay (s/water)	2	182
	Cemented gravel	118	300
	Sand and gravel (dry)	2	302
	Cemented gravel	39	341
	Clay, gravel, sand (s/water)	69	410
	Cemented gravel and boulders	55	465
	Clay, sand, gravel (water)	65	530
	Rocks and gravel	10	540
	Clay, gravel and sand	72	612
	Cemented gravel	106	718
	Sand and clay	2	720
	Sand (water)	14	734
	Sand, gravel, sandstone	22	756

Turn up

Sheet ..... of ..... sheets

WELL LOG.—Continued No...../.....-.....

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Depth forward	———	
	Cemented gravel (water)	56	812
	Clay	1	813
	Gravel and sand (water)	6	819
	Gravel and sand	6	825
	Silt	1	826
	Sand, gravel and clay	1	827
	Clay	20	847
	Casing: 16" from 0 to 442'		
	12" from 0 to 792'		
	Perforated from 755'2" to 825'		
	Screened from 810 to 825'		
	SWL: 350'		
	Yields 400 gpm with 65'(?)dd after 4 hours		
	Pump: 75 hp submersible		

S. F. No. 7449—OS—6-01—2M.

DRILLER'S RECORD FOR WELL 33

CITY OF PUYALLUP

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. _____

Water Right Permit No. _____

(1) **OWNER:** Name CITY OF PUYALLUP Address 218 WEST PIONEER

(2) **LOCATION OF WELL:** County Pierce NE ¼ NE ¼ Sec 3 T. 19 N., R. 4E W.M.

(2a) **STREET ADDDRESS OF WELL** (or nearest address) 23rd St. SOUTH OF Wildwood PARK

(3) **PROPOSED USE:** ☐ Domestic ☐ Irrigation ☐ DeWater ☐ Industrial ☐ Test Well ☒ Municipal ☐ Other

(4) **TYPE OF WORK:** Owner's number of well (if more than one) _____

Abandoned ☐ New well ☐ Deepened ☐ Reconditioned ☒ Method: Dug ☐ Cable ☐ Rotary ☐ Bored ☐ Driven ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well _____ inches.

Drilled _____ feet. Depth of completed well ± 740 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: _____ " Diam. from _____ ft. to _____ ft.

Welded ☐ Liner installed ☐ Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.

_____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☒ No ☐

Type of perforator used Mills Knife

SIZE of perforations ¼ in. by 1 in.

375 perforations from 465 ft. to 540 ft.

250 perforations from 600 ft. to 650 ft.

_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☐

Manufacturer's Name _____

Type _____ Model No. _____

Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☐ Size of gravel _____

Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☐ No ☐ To what depth? _____ ft.

Material used in seal _____

Did any strata contain unusable water? Yes ☐ No ☐

Type of water? _____ Depth of strata _____

Method of sealing strata off _____

(7) **PUMP:** Manufacturer's Name NA

Type: _____ H.P. _____

(8) **WATER LEVELS:** Land-surface elevation above mean sea level 440 ft.

Static level 354.75 ft. below top of well Date 12/2/91

Artesian pressure _____ lbs. per square inch Date _____

Artesian water is controlled by _____ (Cap, valve, etc.))

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level

Was a pump test made? Yes ☒ No ☐ If yes, by whom? HOLT, RTN

Yield: 150 gal./min. with 24 ft. drawdown after 5 hrs.

" " " "

" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
11½ Min	360.2				

Date of test 12/3/91

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

Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.

Artesian flow _____ g.p.m. Date _____

Temperature of water 54°F Was a chemical analysis made? Yes ☒ No ☐

(10) **WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION**

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
WELL DRILLED 1964		
SEE ATTACHED LOG		
SCREEN ASSEMBLY AND CASING		
BACKFILLED BELOW 740		
BENTONITE PLUG INSTALLED		

Work started _____, 19. Completed _____, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME _____ (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address _____

(Signed) _____ (WELL DRILLER) License No. _____

Contractor's Registration No. _____ Date _____, 19

(USE ADDITIONAL SHEETS IF NECESSARY)