

June 22 2020 12:15 PM

KEVIN STOCK  
COUNTY CLERK  
NO: 17-2-12992-1

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

**STATE OF WASHINGTON  
PIERCE COUNTY SUPERIOR COURT**

WASHINGTON STATE DEPARTMENT  
OF HEALTH,

Petitioner,

v.

KAPOWSIN WATER DISTRICT, Owner,  
KAPOWSIN WATER SYSTEM,

Respondent.

NO. 17-2-12992-1

DECLARATION OF KATHERINE  
BROOKS

I, KATHERINE BROOKS, hereby declare under penalty of perjury under the laws of the state of Washington that the following is true and correct:

1. I am and have been a citizen of the United States, over the age of 18 years old, at all times mentioned hereinafter. I have personal knowledge regarding the matters stated herein and am competent to testify as a witness.

2. I am employed by Pierce County, the court appointed receiver in this matter, as the Planning Manager for the Planning & Public Works Department, Sewer Division.

3. For the past two (2) years I have been actively involved on behalf of Pierce County in finding a safe and reliable source of water and permanent water system management for the customers of Kapowsin Water District since the system failed as a result of a damaged water transmission line.

1 4. Attached as Exhibit A to this declaration is a copy of the well drilling water  
2 quality and quantity results.

3 **A. Receivership Actions and Timelines.**

4 Since the last court status update on June 28, 2019, regarding the Kapowsin Water  
5 District (KWD) Receivership Pierce County continues to provide daily maintenance and  
6 operations and has moved forward on actions to improve the water system including:

7 1. Met with Washington Department of Health (DOH) staff on September 30, 2019,  
8 to conduct a required periodic sanitary survey inspection of the KWD water system and  
9 completed the following DOH identified high priority corrective action items:

- 10 a. Installed a new screen on the tank air vent.
- 11 b. Cut and capped all piping connections to the obsolete filtration system.
- 12 c. Installed foam seal on cast iron manhole access to storage tank.
- 13 d. pH calibration solution dated.
- 14 e. Drained water from pipe chamber and evaluated the chamber for leaks.

15 No leaks from piping or pipe penetrations were found but monitoring of these  
16 components will continue.

- 17 f. Installed a new pressure relief valve inside the water treatment building.

18 2. In December 2019, Valley Water District (VWD) staff repaired a leak on the  
19 two-inch PVC pipe coming from the raw water tank that enters the side of the booster pump  
20 building. The concrete around the pipe was dug up and the pipe was realigned and repaired.

21 a. In January 2020, VWD staff read the water meters to collect data for  
22 upcoming DOH required water use reports and repaired the broken fire hydrant along  
23 Griggs Road.

24 b. Pierce County designed a new well drilling project, advertised and  
25 awarded a bid to the low bidder (Tacoma Pump and Drilling, Inc.), and completed the  
26 well drilling portion of the project in May 2020. See additional well drilling project

1 details below.

2 c. Pierce County obtained a United States Department of Agriculture – Rural  
3 Development (USDA-RD) Emergency Grant for \$500,000 that may be applied to  
4 projects related to the Kapowsin water source.

5 **B. Overview of Revenues and Expenditures.**

6 Title 57 RCW requires KWD revenues cover maintenance and operation costs and  
7 RCW 43.70.195(5) authorizes Pierce County to impose reasonable assessments to recover  
8 expenditures associated with the cost of receivership.

9 1. The last court status update described a shortfall in revenues to cover  
10 expenditures during the first year of operation of approximately \$27,322 (excluding state B&O  
11 taxes) and outlined Pierce County’s process to administer a \$700 surcharge on each KWD  
12 account. The county sent out invoices to all forty (40) customers in the amount of \$28,000.  
13 Twenty-five (25) customers used the payment plan offered by the county, ten (10) customers  
14 paid outright and five (5) have not paid at all. As of May 31, 2020, the county has collected  
15 \$19,106.38 of the special surcharge amount.

16 2. The second full year of operations Expenditures to Revenue Report indicates the  
17 county still has a small shortfall, but the county proposes that a second surcharge is not  
18 implemented until the beginning of 2021 or as part of the disposition plan to a future, long-term  
19 owner.

20 3. As of May 31, 2020, fourteen (14) customers are in a delinquent payment status  
21 for a total of just over \$44,500 in outstanding payments. Five (5) accounts make up  
22 approximately \$34,300 of this total outstanding payment amount.

23 a. In response to Governor Inslee’s emergency declaration(s) regarding the  
24 current COVID-19 event, Pierce County adopted Emergency Ordinance 2020-44 that provided  
25 sewer customers relief on penalties and interest for a period of ninety (90) days from  
26 March 6, 2020 to June 4, 2020. The county extended these relief efforts to the customers of the

1 Kapowsin Water District. The county has just extended this relief effort for an additional ninety  
2 (90) days.

3           b.       Valley Water District (VWD) still has an active \$87,627 creditor's claim.  
4 Pierce County has reviewed this information and has determined that Valley Water District  
5 expenses identified in the creditor's claim were legitimate. VWD has indicated to the county that  
6 they would assume this claim amount if the KWD system is transferred back to VWD via the  
7 disposition plan process.

8           c.       The county will not be able to determine the total amount owed by  
9 Kapowsin Water customers until after completion of construction and full payout of any grant  
10 and loan monies that have been received for pursuing a new safe and reliable water source. Any  
11 costs above grant monies received will be borne by the customers of KWD.

12 **C.    Well Drilling Project.**

13           1.       On March 10, 2020, the contractor began construction on the new well drilling  
14 project. The well drilling project was completed on April 24, 2020.

15           2.       On May 4, 2020, the county received initial water quality sampling results that  
16 indicated water coming from the drilled well was high in arsenic, manganese, and iron. The  
17 results also indicated high Total Dissolved Solids (TDS) levels, with associated sodium and  
18 chloride concentrations, which are indicative of a brackish (i.e. salty) water requiring  
19 desalinization that would require the use of advanced treatment processes such as reverse  
20 osmosis (RO), electrodialysis (ED) or electrodialysis reversal (EDR) depending on the final  
21 silica level. This is a very expensive technology that also has significant associated issues that  
22 impact the future cost to operate and maintain the Water System. The highly elevated hardness  
23 of the source water coming from the drilled well and provisions to control corrosion in the  
24 distribution system will also need to be considered.

25           3.       Based on a 24-hour pump test that occurred on May 27–28, 2020, it is estimated  
26 that the drilled well will only produce about ten (10) gallons of drinking water per minute, which

1 is insufficient to meet the needs of the water system. Additionally, the well will likely exhaust  
2 its source within a fixed period of time as the drawdown appears to exceed the ability of the  
3 aquifer to recharge over time.

4 4. The county is now exploring other options with its engineer and hydrogeologist  
5 and will be meeting with the well project stakeholder team on June 24, 2020 to review  
6 alternatives and select the next course of action.

7 5. At this time, the county has invoiced the DOH for \$317,717.29 of their \$500K  
8 grant for the well project. There are at least \$113,988.54 in expenses that have not been invoiced,  
9 leaving \$68,294.17 remaining under the DOH grant. It is anticipated that the decommissioning  
10 of this inadequate well and site restoration will use the remaining DOH grant dollars.

11 6. The USDA-RD contract for a \$500,000.00 emergency grant was recently  
12 obtained, and USDA-RD has verified in writing that they will allow this funding to be used for  
13 an alternative water supply solution based on our recommendation. However, the USDA-RD  
14 grant expires on December 31, 2022, with no further time extensions allowed, so that may limit  
15 the alternatives that are viable if a project cannot be completed within this remaining time period.

16 **D. Disposition Plan Process Steps and Estimated Timeline.**

17 Given the well drilling effort did not result in an adequate new source of water, the county  
18 will need more time to evaluate other alternatives, including the potential to proceed with a  
19 disposition plan for the Kapowsin Water District to another long-term owner. The county  
20 requests an extension of the court review hearing date to the end of September 2020 to allow  
21 time to work through this process.

22  
23 SIGNED in \_\_\_\_\_, Washington on this 19th day of June, 2020.  
24 University Place

25   
26 \_\_\_\_\_  
KATHERINE BROOKS



**PIERCE COUNTY SUPERIOR COURT HEARING DATE 6/26/2020**  
**DECLARATION OF KATHERINE BROOKS**  
**EXHIBIT A - Status of Kapowsin Water District Well Drilling Project**

**Water Quality Test Results**

Attached are the lab test results from the water quality samples taken from the drilled well on 4/20/20 at 580', 4/29/20 at 800' and 5/28/20 at 800' (at the conclusion of the 24-hour pump test). The table below summarizes the water quality results as compared to the Washington State Department of Health standards for Primary and Secondary Maximum Contaminant Levels, which is highlighted in blue. These standards are also consistent with the Environmental Protection Agency standards.

Analyte	Units	Airlift Tests			Pump Test	Primary	Secondary
		~580 ft BGS		~800 ft BGS		Maximum Contaminant Level (MCL)	
		Start	Finish	Finish			
Iron	mg/L	17.23	9.16	5.16		0.3	
Manganese	mg/L	0.650	0.295	0.242		0.05	
Arsenic	mg/L		0.7268	0.6810	0.010		
Chloride	mg/L	3160.5	2968.6	3192.4	2805.0	250	
TDS	mg/L	5628.0	5746.0	6267.5	5422.5	500	
Conductivity	µmhos/cm		9808.0	11325.0	9956.0	700	
Sodium	mg/L		947.9	1568.2	1217.0	20**	
Hardness	mg/L	1020.0	900.0	860.0	790.0		

*\*\*EPA has established a recommended level of 20 mg/L for sodium as a level of concern for consumers that may be restricted for daily sodium intake in their diets*

Based on these preliminary water quality results, this source water is anticipated to require an advanced treatment process in order to achieve regulatory requirements and customer expectations. The iron, manganese, and arsenic concentrations are all higher than was previously assumed for the conceptual treatment alternatives analysis.

The high TDS levels, with associated sodium and chloride concentrations, are indicative of a brackish water requiring desalting using either reverse osmosis (RO), electrodialysis (ED) or electrodialysis reversal (EDR) depending on the final silica level. The highly elevated hardness of the source water and provisions for tailpipe adjustments to control corrosion in the distribution system will also need to be considered. Based on these lab results, a costly and time consuming pilot test is expected to be needed to establish the preferred treatment technology combination.

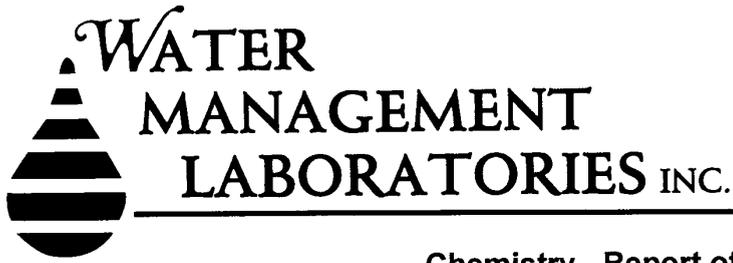
There are several things that need to be considered related to treatment systems needed and treated water characteristics. With an input of about 13 gallons per minute (gpm) the available water from the treatment system would likely be reduced to approximately 10 gpm (due to recovery rates). There will also be a brine waste stream that would need to be managed and disposed of (potentially around 33% of the average water produced), leading to increased long-term maintenance and operational costs and concerns.

### **Water Quantity Test Results**

The following is a summary of the water quantity results from the 24-hour pump test that was completed on May 28, 2020.

- At the conclusion of the test, the well had produced just over 19,300 gallons, averaging 13 gpm.
- Initial indications are that drawdown would be over 260 feet after a week of continuous pumping at this rate.
- The water levels appeared to reach over 90% recovery within 12 to 15 hours, but the level was still depressed by about 2 feet at the conclusion of the test.
- A residual drawdown of 2 feet after 4 days of recovery is not encouraging, indicating that repeated pumping events may exacerbate this trend and water is not being replenished at a sufficient rate.
- There is a possibility of seasonal effects (e.g. aquifer recharge with winter rains), but longer-term seasonal monitoring would be needed to assess this, and concerns would remain for declining water levels during summertime or drought conditions.
- Based on these preliminary findings, we are not confident that the well is sustainable over the long term (e.g. 100 days of continuous use).
- We are awaiting the posting of barometric data from NOAA, after which the final analysis can be completed.
- The existing system has been estimated to have a maximum daily demand of approximately 13.2 gpm. More recent usage data appears to be generally consistent with system demands reflected in the 2012 SWSMP.
- The new well does not appear capable of meeting this demand on a consistent basis.

There is general consensus among the project stakeholders (DOH, Funding Agencies, and Valley Water District) that this well does not appear to be a long-term reliable source.



1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**Chemistry - Report of Analysis**

<b>Lab Number / Sample Number:</b> 089 / 01767 <b>Project Name:</b> Well 1 <b>Permit #:</b>	<b>Date Collected:</b> 04-20-2020 <b>Time Collected:</b> 1:30 PM	~580 ft BGS, End of 4-hour airlift test (unfiltered sample)
<b>Sample Matrix:</b> Drinking-Water <b>Sample Identification:</b> #2	<b>Sample Collected:</b> TWK & PGG <b>Contact Number:</b> 206-293-7896	
<b>Date Received:</b> 04-20-2020 <b>Time Received:</b> 3:00 PM <b>Date Reported:</b> 04-29-2020	<b>Approval Signature:</b> 	
<b>Send Report &amp; Bill to:</b> Pacific Groundwater Group 2377 Eastlake Ave E Seattle WA 98102	<b>Comments:</b>	

**ANALYTICAL RESULTS**

ANALYTE	RESULT	UNITS	REPORTING LEVEL	METHOD	DATE ANALYZED	INITIALS
Arsenic	0.7268	mg/L	0.0010	200.8	04-22-2020	JMB
Barium	<0.10	mg/L	0.10	200.8	04-22-2020	JMB
Cadmium	<0.0010	mg/L	0.0010	200.8	04-22-2020	JMB
Chromium	<0.0070	mg/L	0.0070	200.8	04-22-2020	JMB
Mercury	<0.00020	mg/L	0.00020	200.8	04-22-2020	JMB
Selenium	<0.0020	mg/L	0.0020	200.8	04-22-2020	JMB
Beryllium	<0.00030	mg/L	0.00030	200.8	04-22-2020	JMB
Nickel	0.0152	mg/L	0.0050	200.8	04-22-2020	JMB
Antimony	<0.0030	mg/L	0.0030	200.8	04-22-2020	JMB
Thallium	<0.0010	mg/L	0.0010	200.8	04-22-2020	JMB
Free Cyanide	<0.05	mg/L	0.01	4500CNF	04-27-2020	JA
Fluoride	1.06	mg/L	0.20	300.0	04-21-2020	CK
Nitrite - N	<0.10	mg/L	0.10	300.0	04-22-2020	JA
Nitrate - N	<0.20	mg/L	0.20	300.0	04-21-2020	CK
Total Nitrate/Nitrite - N	<0.40	mg/L	0.40	300.0	04-22-2020	JA
Iron	9.16	mg/L	0.10	3111B	04-25-2020	JMB
Manganese	0.295	mg/L	0.010	200.8	04-22-2020	JMB
Silver	<0.01	mg/L	0.01	200.8	04-22-2020	JMB
Chloride	2968.6	mg/L	1.0	300.0	04-21-2020	CK
Sulfate	1.7	mg/L	1.0	300.0	04-21-2020	CK
Zinc	<0.20	mg/L	0.20	200.8	04-22-2020	JMB
Sodium	947.9	mg/L	5.0	3111B	04-25-2020	JMB
Hardness	900.0	mg/L	1.0	2340C	04-22-2020	MV

ANALYTE	RESULT	UNITS	REPORTING LEVEL	METHOD	DATE ANALYZED	INITIALS
Conductivity	9808.0	µmhos/cm	1.0	2510B	04-21-2020	CK
Turbidity	47.36	NTU	0.10	2130B	04-21-2020	CK
Color	100.0	color units	5.0	2120B	04-21-2020	CK
Lead	<0.0010	mg/L	0.0010	200.8	04-22-2020	JMB
Copper	<0.020	mg/L	0.020	200.8	04-22-2020	JMB
Sulfide	<0.10	mg/L	0.10	4500-S2-D	04-25-2020	CK

**LAB COMMENTS**

--No existing value.

µg/L: micrograms per liter or parts per billion.

ANALYTE: The name of an analyte being tested for.

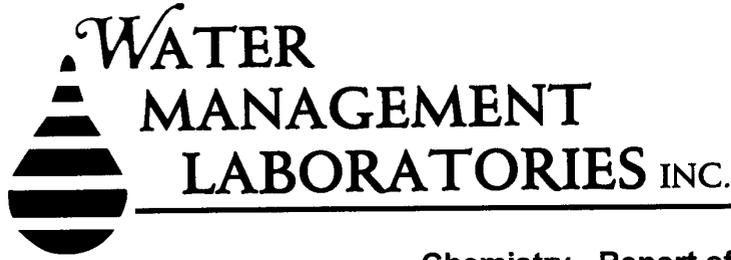
METHOD/INITIALS: Analytical method used. / Initials of the analyst that performed the analysis.

mg/L: milligrams per liter or parts per million.

NTU: Nephelometric turbidity units.

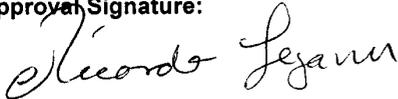
REPORTING LEVEL: Indicates the minimum reporting level determined by the laboratory.

RESULT: The laboratory reported result.



1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**Chemistry - Report of Analysis**

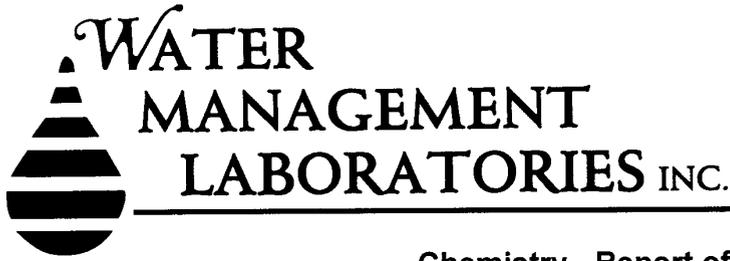
<b>Lab Number / Sample Number:</b> 089 / 01759 <b>Project Name:</b> Well 1 <b>Permit #:</b>	<b>Date Collected:</b> 04-20-2020 <b>Time Collected:</b> 9:30 AM	~580 ft BGS, Start of 4-hour airlift test (unfiltered sample)
<b>Sample Matrix:</b> Drinking-Water <b>Sample Identification:</b> #1	<b>Sample Collected:</b> TWK & PGG <b>Contact Number:</b> 206-293-7896	
<b>Date Received:</b> 04-20-2020 <b>Time Received:</b> 3:00 PM <b>Date Reported:</b> 05-08-2020	<b>Approval Signature:</b> 	
<b>Send Report &amp; Bill to:</b> Pacific Groundwater Group 2377 Eastlake Ave E Seattle WA 98102	<b>Comments:</b>	

**ANALYTICAL RESULTS**

ANALYTE	RESULT	UNITS	REPORTING LEVEL	METHOD	DATE ANALYZED	INITIALS
Arsenic (Dissolved)	0.3100	mg/L	0.0010		04-22-2020	JMB
Iron	17.23	mg/L	0.10	3111B	04-25-2020	JMB
Manganese	0.650	mg/L	0.010	200.8	04-28-2020	JMB
Chloride	3160.5	mg/L	1.0	300.0	04-21-2020	CK
Sulfate	1.4	mg/L	1.0	300.0	04-21-2020	CK
Hardness	1020.0	mg/L	1.0	2340C	04-20-2020	EW
Total Dissolved Solids	5628.0	mg/L	1.0	2540C	04-22-2020	CK
Total Organic Carbon	<0.20	mg/L	0.7	5310C	04-21-2020	CK
Ammonia Nitrogen	0.373	mg/L	0.050	4500NH3F	04-25-2020	CK
Silica	28.2	mg/L	1.0	4500SiO2C	04-22-2020	BG

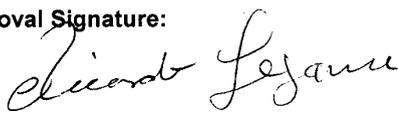
**LAB COMMENTS**

--No existing value.  
 µg/L: micrograms per liter or parts per billion.  
**ANALYTE:** The name of an analyte being tested for.  
**METHOD/INITIALS:** Analytical method used. / Initials of the analyst that performed the analysis.  
 mg/L: milligrams per liter or parts per million.  
 NTU: Nephelometric turbidity units.  
**REPORTING LEVEL:** Indicates the minimum reporting level determined by the laboratory.  
**RESULT:** The laboratory reported result.



1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**Chemistry - Report of Analysis**

<b>Lab Number / Sample Number:</b> 089 / 01760 <b>Project Name:</b> Well 1 <b>Permit #:</b>	<b>Date Collected:</b> 04-20-2020 <b>Time Collected:</b> 1:30 PM	~580 ft BGS, End of 4-hour airlift test (unfiltered sample)
<b>Sample Matrix:</b> Drinking-Water <b>Sample Identification:</b> #2	<b>Sample Collected:</b> TWK & PGG <b>Contact Number:</b> 206-293-7896	
<b>Date Received:</b> 04-20-2020 <b>Time Received:</b> 3:00 PM <b>Date Reported:</b> 05-08-2020	<b>Approval Signature:</b> 	
<b>Send Report &amp; Bill to:</b> Pacific Groundwater Group 2377 Eastlake Ave E Seattle WA 98102	<b>Comments:</b>	

**ANALYTICAL RESULTS**

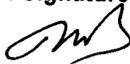
ANALYTE	RESULT	UNITS	REPORTING LEVEL	METHOD	DATE ANALYZED	INITIALS
Arsenic (Dissolved)	0.2080	mg/L	0.0010		04-22-2020	JMB
Total Dissolved Solids	5746.0	mg/L	1.0	2540C	04-22-2020	CK
Total Organic Carbon	<0.20	mg/L	0.7	5310C	04-21-2020	CK
Ammonia Nitrogen	0.243	mg/L	0.050	4500NH3F	04-25-2020	CK
Silica	23.1	mg/L	1.0	4500SiO2C	04-22-2020	BG

**LAB COMMENTS**

--No existing value.  
**µg/L:**micrograms per liter or parts per billion.  
**ANALYTE:**The name of an analyte being tested for.  
**METHOD/INITIALS:**Analytical method used. / Initials of the analyst that performed the analysis.  
**mg/L:**milligrams per liter or parts per million.  
**NTU:**Nephelometric turbidity units.  
**REPORTING LEVEL:**Indicates the minimum reporting level determined by the laboratory.  
**RESULT:**The laboratory reported result.



**Chemistry - Report of Analysis**

<b>Lab Number / Sample Number:</b> 089 / 01881 <b>Project Name:</b> <b>Permit #:</b>	<b>Date Collected:</b> 04-29-2020 <b>Time Collected:</b> 1:30 PM	~800 ft BGS, End of 4-hour airlift test (unfiltered sample)
<b>Sample Matrix:</b> Drinking Water <b>Sample Identification:</b> 3 - Well 1	<b>Sample Collected:</b> Travis Klaas <b>Contact Number:</b> 206-293-7896	
<b>Date Received:</b> 04-29-2020 <b>Time Received:</b> 2:45 PM <b>Date Reported:</b> 05-16-2020	<b>Approval Signature:</b> 	
<b>Send Report &amp; Bill to:</b> Pacific Groundwater Group 2377 Eastlake Ave E Seattle WA 98102	<b>Comments:</b>	

**ANALYTICAL RESULTS**

ANALYTE	RESULT	UNITS	REPORTING LEVEL	METHOD	DATE ANALYZED	INITIALS
Arsenic	0.6810	mg/L	0.0010	200.8	05-06-2020	JMB
Barium	<0.10	mg/L	0.10	200.8	05-05-2020	JMB
Cadmium	<0.0010	mg/L	0.0010	200.8	05-05-2020	JMB
Chromium	<0.0070	mg/L	0.0070	200.8	05-05-2020	JMB
Mercury	<0.00020	mg/L	0.00020	200.8	05-06-2020	JMB
Selenium	<0.0020	mg/L	0.0020	200.8	05-05-2020	JMB
Beryllium	<0.00030	mg/L	0.00030	200.8	05-05-2020	JMB
Nickel	0.0070	mg/L	0.0050	200.8	05-05-2020	JMB
Antimony	<0.0030	mg/L	0.0030	200.8	05-05-2020	JMB
Thallium	<0.0010	mg/L	0.0010	200.8	05-05-2020	JMB
Free Cyanide	<0.05	mg/L	0.01	4500CNF	05-08-2020	JA
Fluoride	1.60	mg/L	0.20	300.0	04-30-2020	EW
Nitrite - N	<0.10	mg/L	0.10	300.0	04-30-2020	EW
Nitrate - N	<0.20	mg/L	0.20	300.0	04-30-2020	EW
Total Nitrate/Nitrite - N	<0.40	mg/L	0.40	300.0	04-30-2020	EW
Iron	5.16	mg/L	0.10	3111B	05-05-2020	JMB
Manganese	0.242	mg/L	0.010	200.8	05-05-2020	JMB
Silver	<0.01	mg/L	0.01	200.8	05-05-2020	JMB
Chloride	3192.4	mg/L	1.0	300.0	04-30-2020	EW
Sulfate	1.2	mg/L	1.0	300.0	04-30-2020	EW
Zinc	<0.20	mg/L	0.20	200.8	05-05-2020	JMB
Sodium	1568.2	mg/L	5.0	3111B	05-05-2020	JMB
Hardness	860.0	mg/L	1.0	2340C	05-02-2020	MV

ANALYTE	RESULT	UNITS	REPORTING LEVEL	METHOD	DATE ANALYZED	INITIALS
Conductivity	11325.0	µmhos/cm	1.0	2510B	04-30-2020	JA
Turbidity	27.49	NTU	0.10	2130B	04-30-2020	JA
Color	25.0	color units	5.0	2120B	04-30-2020	JA
Total Dissolved Solids	6267.5	mg/L	1.0	2540C	04-30-2020	EW
Lead	<0.0010	mg/L	0.0010	200.8	05-05-2020	JMB
Copper	<0.020	mg/L	0.020	200.8	05-05-2020	JMB
Ammonia Nitrogen	0.284	mg/L	0.050	4500NH3F	05-02-2020	MV
Silica	24.9	mg/L	1.0	4500SiO2C	05-02-2020	BG
Sulfide	<0.10	mg/L	0.10	4500-S2-D	05-02-2020	MV
Total Organic Carbon	<1.0	mg/L	0.7	5310C	05-05-2020	CK

**LAB COMMENTS**

- No existing value.
- µg/L: micrograms per liter or parts per billion.
- ANALYTE: The name of an analyte being tested for.
- METHOD/INITIALS: Analytical method used. / Initials of the analyst that performed the analysis.
- mg/L: milligrams per liter or parts per million.
- TU: Nephelometric turbidity units.
- REPORTING LEVEL: Indicates the minimum reporting level determined by the laboratory.
- RESULT: The laboratory reported result.

**WATER MANAGEMENT LABORATORIES INC.**  
**Chain of Custody**

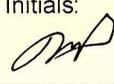
1515 80th St E Tacoma, WA 98404 | (253) 531 - 3121 | customerservice@watermanagementlabs.com

Sample #	# of Bottles	Sample Type		Date Sampled	Time Sampled	Sampled By	Sample Identification	Lab Use	Preserved?		Seal?		
		Water	Other						Micro	Inorg	Yes	No	Yes
1	4	X		4/29/20	13:50	Tom - TML	3 - WCU 1	X	X	X	X	X	X
2													
3													
4													
5													
6													
7													
8							IOC temp						
9							2nd jug temp						
10							TOC temp sulfide temp						
Company Name: Pacific Groundwater Group (TGL) Company Address: 2777 Eastlake Ave E Seattle, WA 98102								Report to: Travis Klaus Phone #: 206 295-7896 Email: Travis@pwwg.com		Remarks: Hold full IOC till we receive final sample results, plus will notify			
Relinquished by: Travis Klaus Received by: Ali Talen Relinquished by: Received by:								Signature: <i>[Signature]</i> Printed Name: Travis Klaus		Date / Time: 4/29/2020 14:57 Company: WML 4.29.2020 2:45pm			



1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**Chemistry - Report of Analysis**

Date Collected: 05-28-2020	System Group Type: (circle one) <b>(A)</b> B Other
Water System ID Number: N/A	System Name: Kapowsin Well
Lab Number / Sample Number: 089 / 02373	County: Pierce
Sample Location: Well Spigot	Source Number(s): (list all sources if blended or composited)
Sample Purpose: (check appropriate box) <input type="checkbox"/> RC - Routine/Compliance (satisfies monitoring requirements) <input type="checkbox"/> C - Confirmation (confirmation of chemical result)* <input type="checkbox"/> I - Investigative (does not satisfy monitoring requirements) <input checked="" type="checkbox"/> O - Other (specify - does not satisfy monitoring requirements)	Date Received: 05-28-2020 Date Reported: 06-16-2020 <hr/> Supervisor Initials: 
Sample Composition: (check appropriate box) <input type="checkbox"/> S - Single Source <input type="checkbox"/> B - Blended (list source numbers in "Source Number" field) <input type="checkbox"/> C - Composite (list source numbers in "Source Number" field) <input type="checkbox"/> D - Distribution Sample	Sample Type: (check one) <input checked="" type="checkbox"/> Pre-treatment/Untreated (Raw) <input type="checkbox"/> Post-treatment (Finished) <input type="checkbox"/> Unknown or Other  Sample Collected by: Nicole Mehr Phone Number: 516-761-9714
Send Report & Bill to: Pacific Groundwater Group 2377 Eastlake Ave E Seattle WA 98102	Comments:

**ANALYTICAL RESULTS**

DOH#	ANALYTE	DATA QUALIFIER	RESULT	SDRL	TRIGGER	MCL	UNITS	EXCEED MCL?	DATE ANALYZED	METHOD/ INITIALS
0004	Arsenic	--	1.5571	0.001	0.010	0.010	mg/L	Yes	06-02-2020	200.8/JMB
0005	Barium	--	<0.10	0.1	2	2	mg/L	No	06-02-2020	200.8/JMB
0006	Cadmium	--	<0.0010	0.001	0.005	0.005	mg/L	No	06-02-2020	200.8/JMB
0007	Chromium	--	<0.0070	0.007	0.1	0.1	mg/L	No	06-02-2020	200.8/JMB
0011	Mercury	--	<0.00020	0.0002	0.002	0.002	mg/L	No	06-02-2020	200.8/JMB
0012	Selenium	--	<0.0020	0.002	0.05	0.05	mg/L	No	06-02-2020	200.8/JMB
0110	Beryllium	--	<0.00030	0.0003	0.004	0.004	mg/L	No	06-02-2020	200.8/JMB
0111	Nickel	--	<0.0050	0.005	--	--	mg/L	--	06-02-2020	200.8/JMB
0112	Antimony	--	<0.0030	0.003	0.006	0.006	mg/L	No	06-02-2020	200.8/JMB
0113	Thallium	--	<0.0010	0.001	0.002	0.002	mg/L	No	06-02-2020	200.8/JMB
0116	Free Cyanide	--	<0.05	0.05	0.2	0.2	mg/L	No	06-01-2020	4500CNF/EW
0019	Fluoride	--	1.33	0.2	2.0	4.0	mg/L	No	05-28-2020	300.0/JA
0114	Nitrite - N	--	<0.10	0.1	0.5	1.0	mg/L	No	05-28-2020	300.0/JA
0020	Nitrate - N	--	<0.20	0.5	5.0	10.0	mg/L	No	05-28-2020	300.0/JA
0161	Total Nitrate/Nitrite - N	--	<0.40	0.5	5.0	10.0	mg/L	No	05-28-2020	300.0/JA

Lab Number / Sample Number: 089 / 02373

DOH#	ANALYTE	DATA QUALIFIER	RESULT	SDRL	TRIGGER	MCL	UNITS	EXCEED MCL?	DATE ANALYZED	METHOD/ INITIALS
0008	Iron	--	1.57	0.1	--	0.3	mg/L	Yes	06-02-2020	3111B/JMB
0010	Manganese	--	0.124	0.01	--	0.05	mg/L	Yes	06-02-2020	200.8/JMB
0013	Silver	--	<0.01	0.1	--	0.1	mg/L	No	06-02-2020	200.8/JMB
0021	Chloride	--	2805.0	20	--	250	mg/L	Yes	05-29-2020	300.0/MV
0022	Sulfate	--	1.9	50	--	250	mg/L	No	05-28-2020	300.0/JA
0024	Zinc	--	<0.20	0.2	--	5	mg/L	No	06-02-2020	200.8/JMB
0014	Sodium	--	1217.0	5	--	--	mg/L	--	06-02-2020	3111B/JMB
0015	Hardness	--	790.0	10	--	--	mg/L	--	05-29-2020	2340C/EW
0016	Conductivity	--	9956.0	70	--	700	µmhos/cm	Yes	05-29-2020	2510B/EW
0017	Turbidity	--	19.51	0.1	--	--	NTU	--	05-29-2020	2130B/EW
0018	Color	--	25.0	15	--	15	color units	Yes	05-29-2020	2120B/EW
--	Total Dissolved Solids	--	5422.5	100	--	500	mg/L	Yes	06-01-2020	2540C/JA
0009	Lead	--	<0.0010	0.001	--	--	mg/L	--	06-02-2020	200.8/JMB
0023	Copper	--	<0.020	0.02	--	--	mg/L	--	06-02-2020	200.8/JMB
--	Ammonia Nitrogen	--	0.607	0.050	--	--	mg/L	--	05-30-2020	4500NH3F/MV
--	Silica	--	34.2	1.0	--	--	mg/L	--	05-30-2020	4500SiO2C/BG

**NOTES:**

\* Confirmation: Include the original lab number, sample number, and collection date of original sample in either comment section.

-- No existing value.

ANALYTE: The name of an analyte being tested for.

DATA QUALIFIER: A symbol or letter to denote additional information about the result.

DOH#: Department assigned analyte number.

EXCEED MCL: (Maximum Contamination Level): Marked if the contaminant amount exceeds the MCL under chapters 246-290 and 246-291 WAC. Please contact the department's drinking water regional office in your area to determine follow-up actions.

METHOD/INITIALS: Analytical method used. / Initials of the analyst that performed the analysis.

mg/L: milligrams per liter or parts per million.

RESULT: The laboratory reported result.

SDRL: (State Detection Reporting Limit): The minimum reportable detection of an analyte as established by the Department of Health

TRIGGER: The department's drinking water response level. Systems with contaminants detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact the department's drinking water regional office in your area for further information.

**LAB COMMENTS**



1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**Volatile Organic Compounds  
Report of Analysis**

Date Collected: 05-28-2020	System Group Type: (circle one) <b>(A)</b> B Other
Water System ID Number: N/A	System Name: Kapowsin Well
Lab Number / Sample Number: 089 / 02373	County: Pierce
Sample Location: Well Spigot	Source Number(s): (list all sources if blended or composited)
Sample Purpose: (check appropriate box) <input type="checkbox"/> RC - Routine/Compliance (satisfies monitoring requirements) <input type="checkbox"/> C - Confirmation (confirmation of chemical result)* <input type="checkbox"/> I - Investigative (does not satisfy monitoring requirements) <input checked="" type="checkbox"/> O - Other (specify - does not satisfy monitoring requirements)	Date Received: 05-28-2020 Date Analyzed: 05-29-2020 Date Reported: 06-16-2020 Supervisor Initials: <i>MB</i>
Sample Composition: (check appropriate box) <input type="checkbox"/> S - Single Source <input type="checkbox"/> B - Blended (list source numbers in "Source Number" field) <input type="checkbox"/> C - Composite (list source numbers in "Source Number" field) <input type="checkbox"/> D - Distribution Sample	Sample Type: (check one) <input checked="" type="checkbox"/> Pre-treatment/Untreated (Raw) <input type="checkbox"/> Post-treatment (Finished) <input type="checkbox"/> Unknown or Other Sample Collected by: Nicole Mehr Phone Number: 516-761-9714
Send Report & Bill to: Pacific Groundwater Group 2377 Eastlake Ave E, Seattle WA 98102	Comments:

**ANALYTICAL RESULTS**

DOH#	ANALYTE	DATA QUALIFIER	RESULTS	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL?	METHOD/ INITIALS
0045	Vinyl chloride	--	ND	0.5	0.5	2	µg/L	No	524.2/RL
0046	1,1- Dichloroethylene	--	ND	0.5	0.5	7	µg/L	No	524.2/RL
0047	1,1,1 Trichloroethane	--	ND	0.5	0.5	200	µg/L	No	524.2/RL
0048	Carbon tetrachloride	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0049	Benzene	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0050	1,2 Dichloroethane	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0051	Trichloroethylene	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0052	Para-dichlorobenzene	--	ND	0.5	0.5	75	µg/L	No	524.2/RL
0056	Dichloromethane	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0057	trans-1,2-Dichloroethylene	--	ND	0.5	0.5	100	µg/L	No	524.2/RL
0060	cis- 1,2-Dichloroethylene	--	ND	0.5	0.5	70	µg/L	No	524.2/RL
0063	1,2- Dichloropropane	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0066	Toluene	--	1.88	0.5	0.5	1000	µg/L	No	524.2/RL
0067	1,1,2-Trichloroethane	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0068	Tetrachloroethylene	--	ND	0.5	0.5	5	µg/L	No	524.2/RL
0071	Monochlorobenzene	--	ND	0.5	0.5	100	µg/L	No	524.2/RL
0073	Ethylbenzene	--	ND	0.5	0.5	700	µg/L	No	524.2/RL
0076	Styrene	--	ND	0.5	0.5	100	µg/L	No	524.2/RL
0084	Ortho-Dichlorobenzene	--	ND	0.5	0.5	600	µg/L	No	524.2/RL
0095	1,2,4- Trichlorobenzene	--	ND	0.5	0.5	70	µg/L	No	524.2/RL
0160	Total Xylenes	--	ND	0.5	0.5	10000	µg/L	No	524.2/RL
0074	m/p Xylenes (MCL for Total)	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0075	o- Xylene (MCL for Total)	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0027	Chloroform	--	ND	0.5	--	--	µg/L	--	524.2/RL

DOH#	ANALYTE	DATA QUALIFIER	RESULTS	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL?	METHOD/ INITIALS
0028	Bromodichloromethane	--	ND	0.5	--	--	µg/L	--	524.2/RL
0029	Dibromochloromethane	--	ND	0.5	--	--	µg/L	--	524.2/RL
0030	Bromoform	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0031	Total Trihalomethanes	--	ND	--	--	80	µg/L	No	524.2/RL
0053	Chloromethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0054	Bromomethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0058	1,1 Dichloroethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0072	1,1,1,2-Tetrachloroethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0078	Bromobenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0079	1,2,3- Trichloropropane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0081	O-Chlorotoluene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0085	Trichlorofluoromethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0086	Bromochloromethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0089	1,3,5- Trimethylbenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0091	1,2,4- Trimethylbenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0092	sec- Butylbenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0093	p- Isopropyltoluene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0094	n- Butylbenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0096	Naphthalene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0104	Dichlorodifluoromethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0154	1,3 Dichloropropene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0062	1,1 Dichloropropene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0064	Dibromomethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0070	1,3- Dichloropropane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0080	1,1,2,2 Tetrachloroethane	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0082	P-Chlorotoluene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0083	m- Dichlorobenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0087	Isopropylbenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0088	n- Propylbenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0090	tert- Butylbenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0097	Hexachlorobutadiene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0098	1,2,3 Trichlorobenzene	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0427	EDB (screening)	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
0428	DBCP (screening)	--	ND	0.5	0.5	--	µg/L	--	524.2/RL
N/A	MTBE	--	ND	0.5	0.5	--	µg/L	--	524.2/RL

Lab Number / Sample Number: 089 / 02373

Volatile Organic Compounds (cont)

**LAB COMMENTS**

\* **Confirmation:**Include the original lab number, sample number, and collection date of original sample in either comment section.

Analysis for EDB and DBCP is screening only. Detections of EDB and DBCP are confirmed using the fumigant test panel.

--No existing value.

µg/L:micrograms per liter or parts per billion.

**ANALYTE:**The name of an analyte being tested for.

**DATA QUALIFIER:**A symbol or letter to denote additional information about the result.

**DOH#:**Department assigned analyte number.

**EXCEED MCL:**(Maximum Contamination Level): Marked if the contaminant amount exceeds the MCL under chapters 246-290 and 246-291 WAC. Please contact the department's drinking water regional office in your area to determine follow-up actions.

**METHOD/INITIALS:**Analytical method used. / Initials of the analyst that performed the analysis.

**RESULT:**The laboratory reported result.

**SDRL:**(State Detection Reporting Limit): The minimum reportable detection of an analyte as established by the Department of Health

**TRIGGER:**The department's drinking water response level. Systems with contaminants detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact the department's drinking water regional office in your area for further information.



1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**Herbicides**  
Report of Analysis

Date Collected: 05-28-2020	System Group Type: (circle one) <b>(A)</b> B Other
Water System ID Number: N/A	System Name: Kapowsin Well
Lab Number / Sample Number: 089 / 02373	County: Pierce
Sample Location: Well Spigot	Source Number(s): (list all sources if blended or composited)
Sample Purpose: (check appropriate box) <input type="checkbox"/> RC - Routine/Compliance (satisfies monitoring requirements) <input type="checkbox"/> C - Confirmation (confirmation of chemical result)* <input type="checkbox"/> I - Investigative (does not satisfy monitoring requirements) <input checked="" type="checkbox"/> O - Other (specify - does not satisfy monitoring requirements)	Date Received: 05-28-2020 Date Analyzed: 06-05-2020 Date Reported: 06-16-2020 Supervisor Initials: <i>MD</i>
Sample Composition: (check appropriate box) <input type="checkbox"/> S - Single Source <input type="checkbox"/> B - Blended (list source numbers in "Source Number" field) <input type="checkbox"/> C - Composite (list source numbers in "Source Number" field) <input type="checkbox"/> D - Distribution Sample	Sample Type: (check one) <input checked="" type="checkbox"/> Pre-treatment/Untreated (Raw) <input type="checkbox"/> Post-treatment (Finished) <input type="checkbox"/> Unknown or Other Sample Collected by: Nicole Mehr Phone Number: 516-761-9714
Send Report & Bill to: Pacific Groundwater Group 2377 Eastlake Ave E, Seattle WA 98102	Comments:

**ANALYTICAL RESULTS**

DOH#	ANALYTE	DATA QUALIFIER	RESULTS	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL?	METHOD/ INITIALS
0137	Dalapon	--	ND	1	1	200	µg/L	No	515.1/JA
0037	2,4-D	--	ND	0.1	0.1	70	µg/L	No	515.1/JA
0038	2,4,5-TP (Silvex)	--	ND	0.2	0.2	50	µg/L	No	515.1/JA
0134	Pentachlorophenol	--	ND	0.04	0.04	1	µg/L	No	515.1/JA
0139	Dinoseb	--	ND	0.2	0.2	7	µg/L	No	515.1/JA
0140	Picloram	--	ND	0.1	0.1	500	µg/L	No	515.1/JA
0138	Dicamba	--	ND	0.2	0.2	--	µg/L	--	515.1/JA
0135	2,4 DB	--	ND	1	1	--	µg/L	--	515.1/JA
0136	2,4,5 T	--	ND	0.4	0.4	--	µg/L	--	515.1/JA
0220	Bentazon	--	ND	0.5	0.5	--	µg/L	--	515.1/JA
0221	Dichlorprop	--	ND	0.5	0.5	--	µg/L	--	515.1/JA
0223	Acifluorfen	--	ND	2	2	--	µg/L	--	515.1/JA
0225	DCPA (Acid Metabolites)	--	ND	0.1	0.1	--	µg/L	--	515.1/JA
0226	3,5-Dichlorobenzoic Acid	--	ND	0.5	0.5	--	µg/L	--	515.1/JA

Lab Number / Sample Number: 089 / 02373

**Herbicides (cont)**

**NOTES:**

\* **Confirmation:** Include the original lab number, sample number, and collection date of original sample in either comment section.

**µg/L:** micrograms per liter or parts per billion.

**ANALYTE:** The name of an analyte being tested for.

**DATA QUALIFIER:** A symbol or letter to denote additional information about the result.

**DOH#:** Department assigned analyte number.

**EXCEED MCL:** (Maximum Contamination Level): Marked if the contaminant amount exceeds the MCL under chapters 246-290 and 246-291 WAC. Please contact the department's drinking water regional office in your area to determine follow-up actions.

**METHOD/INITIALS:** Analytical method used. / Initials of the analyst that performed the analysis.

**RESULT:** The laboratory reported result.

**SDRL:** (State Detection Reporting Limit): The minimum reportable detection of an analyte as established by the Department of Health

**TRIGGER:** The department's drinking water response level. Systems with contaminants detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact the department's drinking water regional office in your area for further information.

**LAB COMMENTS:**

**Pesticides  
Report of Analysis**

Date Collected: 05-28-2020	System Group Type: (circle one) <b>(A)</b> B Other
Water System ID Number: N/A	System Name: Kapowsin Well
Lab Number / Sample Number: 089 / 02373	County: Pierce
Sample Location: Well Spigot	Source Number(s): (list all sources if blended or composited)
Sample Purpose: (check appropriate box) <input type="checkbox"/> RC - Routine/Compliance (satisfies monitoring requirements) <input type="checkbox"/> C - Confirmation (confirmation of chemical result)* <input type="checkbox"/> I - Investigative (does not satisfy monitoring requirements) <input checked="" type="checkbox"/> O - Other (specify - does not satisfy monitoring requirements)	Date Received: 05-28-2020 Date Analyzed: 06-05-2020 Date Reported: 06-16-2020 Supervisor Initials: <i>MB</i>
Sample Composition: (check appropriate box) <input type="checkbox"/> S - Single Source <input type="checkbox"/> B - Blended (list source numbers in "Source Number" field) <input type="checkbox"/> C - Composite (list source numbers in "Source Number" field) <input type="checkbox"/> D - Distribution Sample	Sample Type: (check one) <input checked="" type="checkbox"/> Pre-treatment/Untreated (Raw) <input type="checkbox"/> Post-treatment (Finished) <input type="checkbox"/> Unknown or Other Sample Collected by: Nicole Mehr Phone Number: 516-761-9714
Send Report & Bill to: Pacific Groundwater Group 2377 Eastlake Ave E, Seattle WA 98102	Comments:

**ANALYTICAL RESULTS**

DOH#	ANALYTE	DATA QUALIFIER	RESULTS	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL?	METHOD/ INITIALS
0033	Endrin	--	ND	0.01	0.01	2	µg/L	No	525.2/EW
0034	Lindane (BHC-gamma)	--	ND	0.02	0.02	0.2	µg/L	No	525.2/EW
0035	Methoxychlor	--	ND	0.1	0.1	40	µg/L	No	525.2/EW
0036	Toxaphene	--	ND	1	1	3.0	µg/L	No	508.1/EW
0117	Alachlor	--	ND	0.2	0.2	2	µg/L	No	525.2/EW
0119	Atrazine	--	ND	0.1	0.1	3	µg/L	No	525.2/EW
0120	Benzo(a)pyrene	--	ND	0.02	0.02	0.2	µg/L	No	525.2/EW
0122	Chlordane (total)	--	ND	0.2	0.2	2	µg/L	No	508.1/EW
0124	Di(2-ethylhexyl)adipate	--	ND	0.6	0.6	400	µg/L	No	525.2/EW
0125	Di(2-ethylhexyl)phthalate	--	ND	0.6	0.6	6	µg/L	No	525.2/EW
0126	Heptachlor	--	ND	0.04	0.04	0.4	µg/L	No	525.2/EW
0127	Heptachlor epoxide	--	ND	0.02	0.02	0.2	µg/L	No	525.2/EW
0128	Hexachlorobenzene	--	ND	0.1	0.1	1	µg/L	No	525.2/EW
0129	Hexachlorocyclopentadiene	--	ND	0.1	0.1	50	µg/L	No	525.2/EW
0133	Simazine	--	ND	0.07	0.07	4	µg/L	No	525.2/EW
0118	Aldrin	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0121	Butachlor	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0123	Dieldrin	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0130	Metolachlor	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0131	Metribuzin	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0132	Propachlor	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0254	Fluorene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0173	Arochlor 1221'	--	ND	20	20	--	µg/L	--	508.1/EW
0174	Arochlor 1232'	--	ND	0.5	0.5	--	µg/L	--	508.1/EW

DOH#	ANALYTE	DATA QUALIFIER	RESULTS	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL?	METHOD/ INITIALS
0175	Arochlor 1242'	--	ND	0.3	0.3	--	µg/L	--	508.1/EW
0176	Arochlor 1248'	--	ND	0.1	0.1	--	µg/L	--	508.1/EW
0177	Arochlor 1254'	--	ND	0.1	0.1	--	µg/L	--	508.1/EW
0178	Arochlor 1260'	--	ND	0.2	0.2	--	µg/L	--	508.1/EW
0179	Bromacil	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0180	Arochlor 1016'	--	ND	0.08	0.08	--	µg/L	--	508.1/EW
0190	Terbacil	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0208	EPTC	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0218	Molinate	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0232	4,4 DDD	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0233	4,4 DDE	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0234	4,4 DDT	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0243	Trifluralin	--	ND	0.1	0.1	--	µg/L	--	525.2/EW
0244	Acenaphthylene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0246	Anthracene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0247	Benzo(a)anthracene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0248	Benzo(b)fluoranthene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0250	Benzo(k)fluoranthene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0251	Chrysene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0253	Fluoranthene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0256	Phenanthrene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0257	Pyrene	--	ND	0.2	0.2	--	µg/L	--	525.2/EW
0258	Benzyl butyl phthalate	--	ND	1.0	1.0	--	µg/L	--	525.2/EW
0259	Di-n-butyl phthalate	--	ND	1.0	1.0	--	µg/L	--	525.2/EW
0260	Diethyl phthalate	--	ND	1.0	1.0	--	µg/L	--	525.2/EW
0261	Dimethyl phthalate	--	ND	1.0	1.0	--	µg/L	--	525.2/EW

Lab Number / Sample Number: 089 / 02373

**Pesticides (cont)**

**NOTES:**

\* **Confirmation:** Include the original lab number, sample number, and collection date of original sample in either comment section.

If Arochlors are detected using 505, 508, or 508.1, sample must be reanalyzed using Method 508A to quantify PCBs (as decachlorobiphenyl).

-- No existing value.

µg/L: micrograms per liter or parts per billion.

**ANALYTE:** The name of an analyte being tested for.

**DATA QUALIFIER:** A symbol or letter to denote additional information about the result.

**DOH#:** Department assigned analyte number.

**EXCEED MCL:** (Maximum Contamination Level): Marked if the contaminant amount exceeds the MCL under chapters 246-290 and 246-291 WAC. Please contact the department's drinking water regional office in your area to determine follow-up actions.

**METHOD/INITIALS:** Analytical method used. / Initials of the analyst that performed the analysis.

**RESULT:** The laboratory reported result.

**SDRL:** (State Detection Reporting Limit): The minimum reportable detection of an analyte as established by the Department of Health

**TRIGGER:** The department's drinking water response level. Systems with contaminants detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact the department's drinking water regional office in your area for further information.

**LAB COMMENTS:**



1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**Insecticides/Carbamate  
Report of Analysis**

Date Collected: 05-28-2020	System Group Type: (circle one) <b>A</b> B Other
Water System ID Number: N/A	System Name: Kapowsin Well
Lab Number / Sample Number: 089 / 02373	County: Pierce
Sample Location: Well Spigot	Source Number(s): (list all sources if blended or composited)
Sample Purpose: (check appropriate box) <input type="checkbox"/> RC - Routine/Compliance (satisfies monitoring requirements) <input type="checkbox"/> C - Confirmation (confirmation of chemical result)* <input type="checkbox"/> I - Investigative (does not satisfy monitoring requirements) <input checked="" type="checkbox"/> O - Other (specify - does not satisfy monitoring requirements)	Date Received: 05-28-2020 Date Analyzed: 06-09-2020 Date Reported: 06-16-2020 Supervisor Initials: <i>MD</i>
Sample Composition: (check appropriate box) <input type="checkbox"/> S - Single Source <input type="checkbox"/> B - Blended (list source numbers in "Source Number" field) <input type="checkbox"/> C - Composite (list source numbers in "Source Number" field) <input type="checkbox"/> D - Distribution Sample	Sample Type: (check one) <input checked="" type="checkbox"/> Pre-treatment/Untreated (Raw) <input type="checkbox"/> Post-treatment (Finished) <input type="checkbox"/> Unknown or Other Sample Collected by: Nicole Mehr Phone Number: 516-761-9714
Send Report & Bill to: Pacific Groundwater Group 2377 Eastlake Ave E, Seattle WA 98102	Comments:

**ANALYTICAL RESULTS**

DOH#	ANALYTE	DATA QUALIFIER	RESULTS	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL?	METHOD/ INITIALS
0146	Carbofuran	--	ND	0.9	0.9	40	µg/L	No	531.2/JMB
0148	Oxamyl (Vydate)	--	ND	2	2	200	µg/L	No	531.2/JMB
0142	Aldicarb	--	ND	0.5	0.5	3	µg/L	No	531.2/JMB
0143	Aldicarb sulfone	--	ND	0.8	0.8	2	µg/L	No	531.2/JMB
0144	Aldicarb sulfoxide	--	ND	0.5	0.5	4	µg/L	No	531.2/JMB
0145	Carbaryl	--	ND	2	2	--	µg/L	--	531.2/JMB
0147	Methomyl	--	ND	4	4	--	µg/L	--	531.2/JMB

**NOTES:**

\* **Confirmation:** Include the original lab number, sample number, and collection date of original sample in either comment section.

-- No existing value.

µg/L: micrograms per liter or parts per billion.

**ANALYTE:** The name of an analyte being tested for.

**DATA QUALIFIER:** A symbol or letter to denote additional information about the result.

**DOH#:** Department assigned analyte number.

**EXCEED MCL:** (Maximum Contamination Level): Marked if the contaminant amount exceeds the MCL under chapters 246-290 and 246-291 WAC. Please contact the department's drinking water regional office in your area to determine follow-up actions.

**METHOD/INITIALS:** Analytical method used. / Initials of the analyst that performed the analysis.

**RESULT:** The laboratory reported result.

**SDRL:** (State Detection Reporting Limit): The minimum reportable detection of an analyte as established by the Department of Health

**TRIGGER:** The department's drinking water response level. Systems with contaminants detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact the department's drinking water regional office in your area for further information.

**LAB COMMENTS:**