KAR *Laboratories, Inc.*

4425 Manchester Rd
Kalamazoo, MI 49001
Phone 269 381-9666
Fax 269 381-9698
www.karlabs.com

Zion Water

Attn : ***John Luong***

Project No. :	***701417***
Date Reported :	***02/10/17***
Date Activated :	***02/03/17***
Date Due :	***02/10/17***
Date Validated :	***02/10/17***

Project Description : ***Analysis of water from Test Kit-180***

Dear Client,

The laboratory analysis of your water is presented in this report. The purpose was to screen for key indicators of water quality, quickly and at a low cost, while maintaining professional laboratory data quality. This report cannot be used for Safe Drinking Water Act regulatory compliance purposes because it does not comply with all of the U.S. EPA regulations, mainly in the area of sample collection.

The "Comments" column contains guidelines for interpreting the results. USEPA Maximum Contaminant Levels (MCL's) are included which should not be exceeded to protect health. MCL's in brackets [] are aesthetic water qualities such as taste, odor, or color. Values in braces { } are non-USEPA MCL's such as World Health Org., Canada, etc. *Many contaminants listed on the report do not yet have MCL's set for drinking water, a consequence of being on the leading edge of contaminant testing.*

The low cost of our lab-grade water sampling kits does not include a professional one-on-one consultation regarding specific water problems or health concerns. Please visit the USEPA drinking water website at ***http://water.epa.gov/drink/***, or contact your local Health Department for information specific to your water supply. Always talk to your doctors about health concerns, and show them this report. Thank you for the pleasure and opportunity to serve you!

Respectfully submitted,

The professional staff at KAR Laboratories, Inc.

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Water Test Kit-Anions *(For internal lab use)*	***See below***	*EPA 300.0A* *02/03/17* *ALK*	
Water Test Kit-Metals (MS) *(For internal lab use)*	***See below***	*EPA 200.8* *02/03/17* *NHM*	
Water Test Kit-Metals (OES1) *(For internal lab use)*	***See below***	*EPA 200.7* *02/03/17* *JHB*	
Prep, 1631 *(For internal lab use)*	***Completed***	*EPA 1631E* *02/06/17* *JHB*	
Aluminum, total *A common element occasionally found in water in trace amounts. Elevated levels may be associated with forms of dementia, such as Alzheimer's disease.*	***<0.05 mg/L*** *MCL: [0.050 mg/L]* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0982* *DB Max: 21.3*
Antimony, total *A trace element; occasionally found in water in trace amounts. High levels of antimony can increase blood cholesterol and decrease blood glucose.*	***<0.005 mg/L*** *MCL: 0.006 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0051* *DB Max: 0.036*
Arsenic, total *A trace element; occasionally found in water. High arsenic symptoms may include fatigue, depression, weight loss, hair loss, nausea or white lines across fingernails and toenails.*	***<0.002 mg/L*** *MCL: 0.01 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0029* *DB Max: 0.177*
Barium, total *A common element; frequently found in water in trace amounts. Elevated levels may increase blood pressure.*	***<0.05 mg/L*** *MCL: 2 mg/L* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0768* *DB Max: 3.57*
Beryllium, total *A trace element; occasionally found in water in trace amounts. High levels can cause intestinal lesions.*	***<0.002 mg/L*** *MCL: 0.004 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0021* *DB Max: 0.01*
Bismuth, total *A trace element; occasionally found in water in trace amounts.*	***<0.1 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.1019*
Boron, total *An essential plant nutrient; frequently found in water.*	***<0.05 mg/L*** *MCL: {0.5-5} mg/L* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.1351* *DB Max: 21.9*
Cadmium, total *A trace element; occasionally found in water in trace amounts. Elevated levels can cause kidney disease and/or hypertension.*	***<0.001 mg/L*** *MCL: 0.005 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.001* *DB Max: 0.006*
Calcium, total *A common mineral usually found in water and a primary contributor to water hardness. Calcium is an important nutrient for the human body.*	***0.6 mg/L***	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 36.1202* *DB Max: 1,250*
Cerium, total *A trace element; occasionally found in water in trace amounts.*	***<0.005 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0052* *DB Max: 0.616*
Cesium, total	***<0.02 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0205* *DB Max: 0.08*
Chromium, hexavalent *An industrial contaminant often associated with dye production, wood preservation, or metal plating.*	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0105* *DB Max: 0.137*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Chromium, total *A common element; occasionally found in water in trace amounts.*	***<0.01 mg/L*** *MCL: 0.1 mg/L* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0103* *DB Max: 0.14*
Cobalt, total *A trace element; occasionally found in water in trace amounts.*	***<0.02 mg/L*** *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0204* *DB Max: 0.24*
Copper, total	***<0.02 mg/L*** *MCL: 1.3 mg/L* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.1089* *DB Max: 40.1*
Dysprosium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.101*
Erbium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.051*
Europium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.031*
Gallium, total	***<0.02 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0204*
Germanium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.018*
Gold, total	***<0.02 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0207* *DB Max: 0.788*
Hafnium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.015*
Holmium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.02*
Indium, total	***<0.02 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0205*
Iridium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Iron, total *A common mineral often found in water, and a minor contributor to hardness. Elevated levels will affect taste and cause staining (laundry, fixtures, etc.).*	***<0.01 mg/L*** *MCL: [0.3 mg/L]* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.2554* *DB Max: 165*
Lanthanum, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0103* *DB Max: 0.346*
Lead, total *Frequently found in water made corrosive by softening or demineralizing. Higher levels of Lead can cause abdominal pains, constipation, fatigue or depressed appetite. Long-term exposure may cause nerve or kidney damage, anemia, or learning disabilities in children.*	***<0.001 mg/L*** *MCL: 0.015 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0068* *DB Max: 2.22*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : ***"NVOC SACH"***

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Lithium, total *A common ion; occasionally found in water.*	***<0.05 mg/L*** *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0568* *DB Max: 3.92*
Lutetium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Magnesium, total *A common mineral usually found in water, and a primary contributor to hardness.*	***0.6 mg/L***	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 11.4626* *DB Max: 954*
Manganese, total *A common element occasionally found in water; an essential mineral and a minor contributor to hardness. Elevated manganese levels can disrupt the nervous system and regeneration of hemoglobin.*	***<0.005 mg/L*** *MCL: [0.05 mg/L]* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.077* *DB Max: 281*
Mercury by EPA 1631 *A toxic, trace element. Mercury can cause kidney disease.*	***<0.025 ug/L*** *MCL: 2 ug/L* *None found (acceptable result)*	*EPA 1631E* *02/06/17* *JHB*	*DB Avg: 0.026* *DB Max: 1.74*
Molybdenum, total *A trace element; occasionally found in water in trace amounts.*	***<0.02 mg/L*** *MCL: {0.07} mg/L* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0216* *DB Max: 6.93*
Neodymium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0103* *DB Max: 0.31*
Nickel, total *A common element; occasionally found in water in trace amounts. Elevated levels may cause dermatitis or nasal irritation.*	***<0.02 mg/L*** *MCL: 0.1 mg/L* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.0229* *DB Max: 2.6*
Niobium, total	***<0.05 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0512*
Palladium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.014*
Phosphorus, total, by ICP *A common element and essential nutrient; occasionally found in water. Phosphates are sometimes added to water to reduce the corrosion of metal pipes.*	***<0.5 mg/L*** *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.5592* *DB Max: 159*
Platinum, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Potassium, total *A common ion usually found in water.*	***0.1 mg/L***	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 3.388* *DB Max: 901*
Praseodymium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.081*
Rhenium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Rhodium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Rubidium, total *A trace element; occasionally found in water in trace amounts.*	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0114* *DB Max: 1.61*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : ***"NVOC SACH"***

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Ruthenium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Samarium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.082*
Scandium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Selenium, total *A trace element and essential mineral; occasionally found in water in trace amounts. High levels may cause hair or fingernail loss, numbness in fingers and toes, or circulatory problems.*	***<0.005 mg/L*** *MCL: 0.05 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0052* *DB Max: 0.143*
Silicon, total *A likely dietary requirement for several organisms including humans.*	***1.3 mg/L***	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 5.7543* *DB Max: 62*
Silver, total *A trace element; occasionally found in water in trace amounts. Higher levels may cause discoloring of the skin.*	***<0.005 mg/L*** *MCL: [0.1 mg/L]* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0086* *DB Max: 30*
Sodium, total *A common ion usually found in water. Low-sodium diets should be under 20 mg/L. Water softeners that use sodium chloride for regeneration will increase the amount of sodium in the softened water.*	***4.8 mg/L*** *MCL: [20 mg/L]*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 55.7303* *DB Max: 1,900*
Strontium, total *A common element; frequently found in water.*	***<0.1 mg/L*** *MCL: {1.5} mg/L* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.4055* *DB Max: 38.8*
Sulfur, total, by ICP *Commonly present in the form of sulfate; occasionally present in the form of sulfide, which produces a "rotten egg" odor.*	***<0.5 mg/L*** *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 17.4544* *DB Max: 1,550*
Tantalum, total	***<0.05 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0512*
Tellurium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Terbium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.019*
Thallium, total *A trace element; seldom found in water. Elevated levels can cause hair loss, changes in the blood, or kidney, digestive, or liver problems.*	***<0.002 mg/L*** *MCL: 0.002 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.002* *DB Max: 0.009*
Thorium, total	***<0.02 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0205* *DB Max: 0.022*
Thulium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102*
Tin, total	***<0.1 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.1024* *DB Max: 3.7*
Titanium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0107* *DB Max: 0.432*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : ***"NVOC SACH"***

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Tungsten, total	***<0.05 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0512* *DB Max: 0.185*
Uranium, total *A naturally-occurring radioactive element occasionally found in water and a potential indicator of other radioactive problems.*	***<0.005 mg/L*** *MCL: 0.03 mg/L* *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0148* *DB Max: 2.14*
Vanadium, total *A trace element; occasionally found in water in trace amounts. Vanadium may cause respiratory problems and inhibit sodium and potassium in ATP production.*	***<0.02 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0205* *DB Max: 0.312*
Ytterbium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0102* *DB Max: 0.038*
Yttrium, total	***<0.01 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0103* *DB Max: 0.575*
Zinc, total *A common element frequently found in water in trace amounts; often found in water from plumbing systems containing galvanized (zinc-plated) piping.*	***<0.02 mg/L*** *MCL: [5 mg/L]* *None found (acceptable result)*	*EPA 200.7* *02/03/17* *JHB*	*DB Avg: 0.1271* *DB Max: 18.7*
Zirconium, total	***<0.05 mg/L*** *None found (acceptable result)*	*EPA 200.8* *02/03/17* *NHM*	*DB Avg: 0.0516* *DB Max: 4*
Bacteria, E. coli *4% of kit samples are tested Positive.*	***Negative*** *Negative indicates this bacteria was not detected by this screening method.*	*SM 9223 B* *02/03/17* *EIF*	
Bacteria, total coliform *39% of kit samples are tested Positive, often due to a dirty faucet aerator and/or improper sampling.*	***Positive*** *A result other than "Negative" indicates a potential problem - resampling or well chlorination followed by retesting is usually recommended.*	*SM 9223 B* *02/03/17* *EIF*	
Alkalinity (as CaCO3) *A collective measure of the ability of water to maintain pH, or more specifically, to neutralize acid. Typically falls in a 100-400 mg/L range.*	***16 mg/L***	*SM 2320 B* *02/03/17* *JWW*	*DB Avg: 144.2738* *DB Max: 1,520*
Bicarbonate (as CaCO3) *A common mineral usually found in water, and the primary contributor to alkalinity.*	***16 mg/L***	*SM 2320 B* *02/06/17* *LIM*	*DB Avg: 142.1466* *DB Max: 1,400*
Bromide *A common ion frequently found in water and a byproduct of bromine disinfection.*	***<0.1 mg/L*** *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 0.177* *DB Max: 152*
Carbonate (as CaCO3) *A common mineral frequently found in water, and a minor contributor to alkalinity.*	***<0.02 mg/L*** *None found (acceptable result)*	*SM 2320 B* *02/06/17* *LIM*	*DB Avg: 2.0497* *DB Max: 207*
Chlorate *A disinfection biproduct occasionally found in a chlorinated water.*	***<0.1 mg/L*** *MCL: {0.7} mg/L* *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 0.1652* *DB Max: 58.4*
Chloride *A common ion usually found in water. Higher levels may impart a salty taste, weaken metal plumbing or inhibit plant growth.*	***<1 mg/L*** *MCL: [250 mg/L]* *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 47.7111* *DB Max: 3,340*
Color *Usually a faint yellow color, often due to iron but occasionally due to tannins from plant material.*	***<5 color units*** *MCL: [15 c.u.]* *None found (acceptable result)*	*SM 2120 B* *02/06/17* *EIF*	*DB Avg: 7.8457* *DB Max: 50*

DRINKING WATER LABORATORY REPORT

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Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : ***"NVOC SACH"***

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Conductivity *A measure of the water's ability to conduct electricity; often used as an indicator of total dissolved solids.*	***38 micromhos/cm***	*SM 2510 B* *02/03/17* *JWW*	*DB Avg: 516.3989* *DB Max: 10,300*
Corrosivity, Langelier Index *A measure of the water's tendency to corrode metal or form mineral scale. A negative value indicates a tendency to corrode, and a positive value indicates a tendency to form scale. A value near zero is neutral. A thin coating of scale inside a metal pipe may help protect it from corrosion.*	***-3.9 S.U.***	*SM 2330 B* *02/06/17* *LIM*	*DB Avg: -0.657* *DB Max: 2.7*
Corrosivity, Ryznar Index *A measure of the water's tendency to corrode metal or form mineral scale. A value greater than 8.0 indicates a tendency to corrode, and a value less than 7.0 indicates a tendency to form scale. A value near 7.5 is neutral. A thin coating of scale inside a metal pipe may help protect it from corrosion.*	***14.3 S.U.***	*SM 2330 B* *02/06/17* *LIM*	*DB Avg: 8.9854* *DB Max: 20.6*
Fluoride *A common ion, sometimes found naturally in water, but usually added to municipal waters to prevent tooth decay.*	***<0.1 mg/L*** *MCL: 4 mg/L [2]* *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 0.4114* *DB Max: 169*
Hardness *The combined effect produced mostly by naturally-occurring calcium and magnesium in the water. Hardness classifications: soft (0-17 mg/L), slightly hard (18-60 mg/L), moderately hard (61-120 mg/L), hard (121-180 mg/L) and very hard (>180 mg/L).*	***4.0 mg/L (as CaCO3)***	*SM 2340 B* *02/06/17* *LIM*	*DB Avg: 137.3949* *DB Max: 4,990*
Hardness (gpg) *Another way to express hardness. Hardness classifications: soft (0-1.0 gpg), slightly hard (1.1-3.5 gpg), moderately hard (3.6-7.0 gpg), hard (7.1-10.5 gpg) and very hard (>10.6 gpg). 1 gpg = 17.12 mg CaCO3/L.*	***0.2 grains/gallon***	*SM 2340 B* *02/06/17* *LIM*	*DB Avg: 8.0372* *DB Max: 291*
Nitrogen, nitrate	***<0.1 mg/L*** *MCL: 10 mg/L* *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 1.1079* *DB Max: 98.9*
Nitrogen, nitrite	***<0.1 mg/L*** *MCL: 1 mg/L* *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 0.1355* *DB Max: 9.5*
Orthophosphate *A corrosion-inhibiting chemical sometimes used in public water supplies to reduce Lead concentrations.*	***<0.1 mg/L*** *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 0.4677* *DB Max: 120*
PH *A measure of whether a water is acidic or basic. Usually between 6.5 and 8.5.*	***6.4 S.U.*** *MCL: 6.5-8.5su*	*SM 4500-H B* *02/03/17* *JWW*	*DB Avg: 7.6345* *DB Max: 11.4*
Salinity *The dissolved salts in water. Public water supplies are typically under 0.5ppt.*	***<0.1 ppt*** *None found (acceptable result)*	*SM 2520 B* *02/03/17* *LIM*	*DB Avg: 27.9719* *DB Max: 2,920*
Silica (calc. from Silicon) *A common mineral; some dissolved silica is often found naturally in water. This result was calculated from the "Silicon, total" test and provides the theoretical maximum Silica concentration.*	***2.8 mg/L***	*EPA 200.7* *02/03/17* *LIM*	*DB Avg: 15.3085* *DB Max: 132*
Sodium ads. ratio, adjusted *Many soil scientists recommend that the Adjusted SAR value be used for waters high in calcium or bicarbonate; primarily groundwater used for crop irrigation.*	***0.46***	*KAR* *02/06/17* *LIM*	*DB Avg: 6.3804* *DB Max: 146*
Sodium adsorption ratio *Farmers use this index to evaluate the sodium-loading potential in an irrigated soil. Irrigation water with a high SAR value may cause soil dispersion, crusting, poor seedling emergence, slower infiltration and percolation rates, and poor aeration.*	***1.05***	*KAR* *02/06/17* *LIM*	*DB Avg: 8.6606* *DB Max: 260*
Sulfate *A common ion usually found in water. A low level actually improves taste and is an additive in some beverages. High levels can cause aesthetic problems or a laxative effect.*	***<1 mg/L*** *MCL: [250 mg/L]* *None found (acceptable result)*	*EPA 300.0A* *02/03/17* *ALK*	*DB Avg: 49.9612* *DB Max: 4,860*
Turbidity *Turbidity is a measure of the cloudiness in the water and is influenced by the amount and nature of suspended organic and inorganic material in water. The source could be fine sand, silt, clay, organic material, particles of iron and manganese or other metal oxides, rust from corroding piping, or carbonate precipitates.*	***<1 NTU*** *MCL: {0.3}* *None found (acceptable result)*	*SM 2130 B* *02/03/17* *MID*	*DB Avg: 3.3635* *DB Max: 686*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Tot. diss. solids, estimated *An estimate of all salts and minerals dissolved in the water. High levels can leave residues on fixtures.*	***25.0 mg/L*** *MCL: [500 mg/L]*	*EPA 120.1* *02/03/17* *LIM*	*DB Avg: 352.5314* *DB Max: 9,270*
Volatile TICs *(For internal lab use)*	***None found***	*EPA 524.2* *02/06/17* *JAR*	
Water Test Kit-VOCs *(For internal lab use)*	***See below***	*EPA 524.2* *02/06/17* *JAR*	
Prep, VOA *(For internal lab use)*	***Completed***	*EPA 524.2* *02/06/17* *JAR*	
1,1,1,2-Tetrachloroethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,1,1-Trichloroethane	***<0.5 ug/L*** *MCL: 200 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.503* *DB Max: 6.2*
1,1,2,2-Tetrachloroethane	***<0.5 ug/L*** *MCL: {1} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,1,2-Trichloroethane	***<0.5 ug/L*** *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,1-Dichloroethane	***<0.5 ug/L*** *MCL: {20} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5004* *DB Max: 1*
1,1-Dichloroethene	***<0.5 ug/L*** *MCL: 7 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5056* *DB Max: 13*
1,1-Dichloropropene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,2,3-Trichlorobenzene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,2,3-Trichloropropane	***<0.5 ug/L*** *MCL: {0.8} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,2,3-Trimethylbenzene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5191* *DB Max: 43*
1,2,4-Trichlorobenzene	***<0.5 ug/L*** *MCL: 70 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,2,4-Trimethylbenzene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5485* *DB Max: 100*
1,2-Dibromo-3-chloropropane	***<0.2 ug/L*** *MCL: 0.2 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.2*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
1,2-Dichlorobenzene	*<0.5 ug/L* *MCL: 600 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,2-Dichloroethane	*<0.5 ug/L* *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,2-Dichloropropane	*<0.5 ug/L* *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,3,5-Trimethylbenzene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.513* *DB Max: 27*
1,3-Dichlorobenzene	*<0.5 ug/L* *MCL: {7} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,3-Dichloropropane	*<0.5 ug/L* *MCL: {20} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1,4-Dichlorobenzene	*<0.5 ug/L* *MCL: 75 [5] ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
1-Chlorobutane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
2,2,4-Trimethylpentane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
2,2-Dichloropropane	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
2-Butanone (MEK)	*<25 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 25.7239* *DB Max: 700*
2-Chloroethylvinyl ether	*<10 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 10*
2-Chlorotoluene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
2-Hexanone	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
2-Methylnaphthalene by 524.2	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
2-Nitropropane	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
4-Chlorotoluene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
4-Methyl-2-pentanone (MIBK)	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 49.9807* *DB Max: 7.2*
Acetone *An organic solvent; occasionally found in water if work was recently done on the plumbing system.*	***<20 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 20.3734* *DB Max: 300*
Acetonitrile	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Acrolein	***<20 ug/L*** *MCL: {320} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 20*
Acrylonitrile	***<2 ug/L*** *MCL: {10} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 2*
Allyl chloride	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Benzene	***<0.5 ug/L*** *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5319* *DB Max: 61*
Bromobenzene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Bromochloromethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5127* *DB Max: 11*
Bromodichloromethane *A disinfection byproduct occasionally found in a chlorinated water.*	***<0.5 ug/L*** *MCL: {16} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 2.6198* *DB Max: 66*
Bromoform *A disinfection byproduct occasionally found in a chlorinated water.*	***<0.5 ug/L*** *MCL: {80} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.9581* *DB Max: 83*
Bromomethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Butyl acetate	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Carbon disulfide	***<5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
Carbon tetrachloride	***<0.5 ug/L*** *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Chloroacetonitrile	***<500 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 500*
Chlorobenzene	***<0.5 ug/L*** *MCL: 100 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Chlorodifluoromethane	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Chloroethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Chloroform *A disinfection byproduct frequently found in a chlorinated water.*	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 7.4732* *DB Max: 150*
Chloromethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Chloropentafluoroethane	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Cis-1,2-Dichloroethene	***<0.5 ug/L*** *MCL: 70 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5043* *DB Max: 5*
Cis-1,3-Dichloropropene	***<0.5 ug/L*** *MCL: {0.5} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Cyclohexane	***<5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5.0059* *DB Max: 18*
Cyclohexanol	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Dibromochloromethane *A disinfection byproduct occasionally found in chlorinated water.*	***<0.5 ug/L*** *MCL: {80} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 1.6375* *DB Max: 58*
Dibromomethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5033* *DB Max: 5.1*
Dichlorodifluoromethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5008* *DB Max: 1.8*
Diethyl ether	***<5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
Diisopropyl ether	***<5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
Ethyl acetate	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Ethyl methacrylate	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Ethyl t-butyl ether (ETBE)	***<5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Ethylbenzene	*<0.5 ug/L* *MCL: 700 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5019* *DB Max: 2.5*
Ethylene dibromide	*<0.2 ug/L* *MCL: 0.05 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.2*
Heptane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
Hexachlorobutadiene by 524.2	*<0.5 ug/L* *MCL: {0.6} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.4103*
Hexachloroethane by 524.2	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Hexane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
Isobutyraldehyde by 524	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Isopropanol	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50.9662* *DB Max: 1,000*
Isopropyl acetate	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Isopropylbenzene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
M-and/or p-xylene	*<1 ug/L* *MCL: {300} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 1.1091* *DB Max: 210*
Methacrylonitrile	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Methyl cyclopentane	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 49.9932* *DB Max: 35*
Methyl formate	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Methyl iodide	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
Methyl methacrylate	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Methyl t-butyl ether (MTBE)	*<5 ug/L* *MCL: {15} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5.0574* *DB Max: 120*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : *"NVOC SACH"*

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Methylacrylate	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Methylene chloride	*<0.5 ug/L* *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5048* *DB Max: 6.9*
N-Amyl acetate	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
N-Butanol	*<500 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 500*
N-Butylbenzene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5005* *DB Max: 1.5*
N-Decane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
N-Nonane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
N-Propanol	*<500 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 500*
N-Propylbenzene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Naphthalene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5019* *DB Max: 4.8*
Nitrobenzene by 524.2	*<500 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 500*
O-Xylene	*<0.5 ug/L* *MCL: {300} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5506* *DB Max: 99*
Octane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
P-Isopropyltoluene	*<0.5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Pentane	*<5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5.0036* *DB Max: 13*
Propionitrile	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Propyl acetate	*<50 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*

DRINKING WATER LABORATORY REPORT

Client: *Zion Water*

Project No. : *701417*

Date Reported: *02/10/17*

Analysis of water from Test Kit-180

Sample ID : ***"NVOC SACH"***

Sampled By : *John Luong*
Sample Date : *01/29/17*
Sample Time :

Date Received : *02/03/17*
Sample Type : *domestic*
Sample No. : *701417-01W*

Test	Result	Method, Date, Analyst	Supplimental Info.
Sec-Butylbenzene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Styrene	***<0.5 ug/L*** *MCL: 100 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5002* *DB Max: 0.9*
Tert-Amyl methyl ether	***<5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 5*
Tert-Butanol	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 51.8698* *DB Max: 4,000*
Tert-Butylbenzene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Tetrachloroethene	***<0.5 ug/L*** *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5051* *DB Max: 6.3*
Tetrahydrofuran (THF) *An organic solvent; occasionally found in water if work was recently done on the plumbing system.*	***<10 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 18.2725* *DB Max: 4,000*
Toluene	***<0.5 ug/L*** *MCL: 1000 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.6827* *DB Max: 100*
Trans-1,2-Dichloroethene	***<0.5 ug/L*** *MCL: 100 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Trans-1,3-Dichloropropene	***<0.5 ug/L*** *MCL: {0.5} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Trans-1,4-Dichloro-2-butene	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Trichloroethene	***<0.5 ug/L*** *MCL: 5 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5018* *DB Max: 1.3*
Trichlorofluoromethane	***<0.5 ug/L*** *MCL: {150} ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5004* *DB Max: 1.3*
Trichlorotrifluoroethane	***<0.5 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.5*
Trihalomethanes, total *The sum of the 4 individual trihalomethane disinfectant byproducts.*	***<2 ug/L*** *MCL: 80 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/08/17* *LIM*	*DB Avg: 12.4768* *DB Max: 230*
Trimethyl-o-acetate	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*
Vinyl acetate	***<50 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 50*

DRINKING WATER LABORATORY REPORT

Client: ***Zion Water***

Project No. : ***701417***

Date Reported: ***02/10/17***

Analysis of water from Test Kit-180

Sample ID : ***"NVOC SACH"***

Sampled By : ***John Luong***
Sample Date : ***01/29/17***
Sample Time :

Date Received : ***02/03/17***
Sample Type : ***domestic***
Sample No. : ***701417-01W***

Test	Result	Method, Date, Analyst	Supplimental Info.
Vinyl chloride	***<0.5 ug/L*** *MCL: 2 ug/L* *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 0.6932* *DB Max: 20*
TPH by GC-gasoline range	***<100 ug/L*** *None found (acceptable result)*	*EPA 524.2* *02/06/17* *JAR*	*DB Avg: 100.4955* *DB Max: 1,200*

This report is informational and is not intended for use in SDWA regulatory compliance testing. Partial copies are invalid. Laboratory does not own the data and cannot provide copies. Copies cannot be made without the written consent of the owner, **Zion Water**

"<" (less than sign) indicates NOT FOUND. The number to the right of "<" is the lowest concentration that the test can detect (the reporting limit)

Terms **Explanation**

Test	The property or contaminant we tested for in your water sample
Result	The actual laboratory findings of your test
MCL	The recommended Maximum Contaminant Level: USEPA Primary, [USEPA Secondary], {WHO, Canada, Etc.} - See Page 1
Method	The analytical test procedure that we used to measure that Test
Date	The date the test was performed
Analyst	The initials of the analyst who performed that Test
DB Avg	The numerical average from the KAR Laboratories database of about 10,000 USA test kit results from 2013-2016. For non-detected samples, the reporting limit is used. For reference use only; some calculations may be misleading due to varying reporting limits
DB Max	The highest test result from the KAR Laboratories database of about 10,000 USA test kit results from 2013-2016. For reference use only

Units of Measure

mg/L is milligrams per liter, also known as parts per million (ppm)
ug/L is micrograms per liter, also known as parts per billion (ppb)
ppm is parts per million
ppt is parts per thousand
micromhos/cm is micromhos per centimeter
ppb is parts per billion
gpg is grains per gallon
S.U. is Standard Units
NTU is Nephelometric Turbidity Units

This report cannot be used for the purposes of regulatory compliance due to sampling limitations, test method modifications and varying local regulations. Partial report copies are invalid. Copies cannot be made without the written consent of the owner, **Zion Water**.

KAR Laboratories, Inc.

DESCRIPTION OF TESTS AND IF NECESSARY, TREATMENT

Always consult your doctor for health-related issues and show him/her your Analytical Report. Please consult your water treatment professional, well driller, and local health department for treatment advice. Our expertise is measurement science and we cannot and will not advise customers on topics outside of our expertise. This is because we are not doctors, we do not know about the water in your area, and we must remain scientifically objective. **Please refer to the body of your Analytical Report for U.S. EPA Maximum Contaminant Levels and how they relate to YOUR water sample. Primary MCLs (example: MCL=0.5ug/L) should NOT be exceeded. Secondary MCLs are indicated in brackets [ ] (example: MCL=[0.5ug/L]) and are not health related and usually for aesthetic reasons (taste, color, iron staining, water spotting, etc.).** Below is information based upon common questions we get:

Bacteria, E. coli and total Coliform These bacteria come from human and animal wastes and are found throughout the environment. Most coliform bacteria are not a health threat, but some strains are pathogenic. Testing for Coliforms is used to indicate whether other potentially harmful bacteria may be present. Kitchen faucets with an aerator screen, infrequently used faucets, and outdoor faucets are more prone to grow bacteria. It is not uncommon for the sample to become contaminated by touching the threads on the vial and/or placing the cap on a counter top. Chlorination/flushing of the well and plumbing system will help reduce or eliminate the bacteria. Most public water systems maintain a beneficially low concentration of chlorine to control bacteria.

Corrosivity, Langelier Saturation Index See explanation following the test results

Corrosivity, Ryznar Stability Index See explanation following the test results

Chlorate See explanation following the test results

Fluoride See explanation following the test results

Hardness If a resin-bed water softener is being used, the Calcium and Magnesium results should be low (less than 5 mg/L). If they're not, double-check the softener's settings and make sure the end of the suction line in the brine tank isn't clogged with salt sludge. A well-maintained resin bed should last about 20 years.

Copper A common toxic contaminant in many drinking waters that we test. Usually attributable to the water distribution system and is directly effected by the corrosivity of the source water. The USEPA Primary Drinking Water limit is 1.3mg/L (1300ug/L).

Lead A common toxic contaminant in many drinking waters that we test. Usually attributable to the water distribution system and is directly effected by the corrosivity of the source water. The USEPA Primary Drinking Water limit is 0.015mg/L (15ug/L).

Uranium Uranium is naturally occurring in the soil and rock of certain regions, and decomposes to Radon and Radium, making Uranium a potential indicator of these other toxic breakdown products.

Nitrate The largest use of nitrates is in fertilizer. In the body, nitrates are converted to nitrites. Infants below six months of age who drink water containing nitrate in excess of the maximum contaminant level (MCL) could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome. The long-term effects of Nitrate on adults is still being studied.

Salinity The saltiness or dissolved salt content of water. Groundwater, inland lakes, and rivers are typically less than 0.5 parts-per-thousand (ppt). Brackish water is 0.5 to 30 ppt. Seawater and brines are 30 to 50 ppt.

Sodium adsorption ratio (SAR) See explanation following the test results

Sodium ads. ratio, adjusted See explanation following test results

Silica See explanation following the test results.

Sulfate Usually found in drinking water. The USEPA secondary limit is 250ppm. See explanation following the test results.

Sulfur Usually found in drinking water and is most often directly attributable to the sulfate ion (SO4). Excess indicates additional sources

Total Organic Carbon TOC does not identify specific organic contaminants. It will, however, detect the presence of all carbon-bearing molecules, thus identifying the presence of any organic contaminants, regardless of molecular make-up. A general water quality criteria for TOC is 2 mg/L for treated water and 4 mg/L for source water. TOC levels in chlorinated water influence the amount of Total Trihalomethanes (TTHMs) that are formed in that water.

Turbidity A cloudy or milky appearance of water. Turbidity is due to particles scattering or absorbing light, giving the water a cloudy appearance. Turbidity should be below 5 nephelometric turbidity units (NTU), while systems that filter must ensure that the turbidity does not exceed 1 NTU, or 0.5 NTU for conventional or direct filtration in at least 95% of the daily samples for any two consecutive months.

Chloroform, Bromoform, Bromodichloromethane, Dibromochloromethane The maximum allowable concentration of the sum of these is 80 ug/L. These compounds are collectively called Total Trihalomethanes (TTHM) and are commonly found in municipal water supplies. Trihalomethanes are formed when chlorine is used to disinfect water for drinking and represent a group of chemicals called disinfection byproducts. They are a byproduct of the reaction of chlorine or bromine with organic matter present in the water being treated. A good charcoal filter is effective at removing trihalomethanes from water, just be sure to change the charcoal bed frequently to avoid bacteria and mold buildup.

Total Trihalomethanes (TTHM's) See above "Chloroform, Bromoform, Bromodichloromethane, Dibromochloromethane"

Ethylene dibromide EDB is very rarely found in drinking water. We can report it down to 0.2 ug/L. The extremely low EPA MCL 0.05 ug/L detection limit is beyond the scope of our value-centric kits. We are however EPA certified to analyze EDB using EPA Method 504 at additional cost. Please give us a call if you have reason to believe this is a concern in your situation.

PCBs Polychlorinated biphenyls are highly toxic but very rarely found in drinking water. We report down to 2 ug/L in Kit-270 and 0.5 ug/L in Kit-360. The extremely low EPA MCL 0.5 ug/L detection limit is beyond the scope of our value-centric Kit-270. We are however EPA certified to analyze PCB using EPA Method 508 at additional cost. Please give us a call if you have reason to believe this is a concern in your situation.

VOC TICs Volatile Organic Tentatively Identified Compounds - in a GC-MS volatile analysis using EPA method 524.2, we directly calibrate the instrument using a 5-point calibration curve with pure, authentic analytical standards. These are called "target analytes". But we also have the ability to detect other contaminants during the course of the test, and will report these "Tentatively Identified Compounds" that we may find. We use the NIST mass spectral database of about 250,000 compounds to identify the contaminant, then do a "raw" quanitification. It's called raw because we did not directly calibrate the instrument with that authentic compound, but we have a pretty good idea what response it will provide. So statistically, we report the TICs to only one significant figure, whereas we use more significant figures elsewhere for organics. We rarely detect TICs, but when we do, they're a very good thing to know about.

SVOC TICs Semi-Volatile Organic Tentatively Identified Compounds - In a GC-MS semi-volatile analysis using EPA Method 525.2, we directly calibrate the instrument using a 5-point calibration curve with pure, authentic analytical standards. These are called "target analytes". But we also have the ability to detect other contaminants during the course of the test, and will report these "Tentatively Identified Compounds" that we may find. We use the NIST mass spectral database of about 250,000 compounds to identify the contaminant, then do a "raw" quanitification. It's called raw because we did not directly calibrate the instrument with that authentic compound, but we have a pretty good idea what response it will provide. So statistically, we report the TICs to only one significant figure, whereas we use more significant figures elsewhere for organics. We rarely detect TICs, but when we do, they're a very good thing to know about.