

**ERDMAN & ASSOCIATES**  
**Consulting Engineers / Water Testing Laboratory**

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5200 Dunbar Drive  
Wasilla, AK 99654

Phone 907-376-6989  
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November 17, 2009

Mr. Alex Fonov  
Pacific North Construction  
PO Box 872963  
Wasilla, AK 99687

Re: L12/B2 Memory Lake Commercial; E&A Project #09206

Mr. Fonov,

As requested, Erdman & Associates performed a well flow test at the referenced property.

The well log indicates that the well is 55 feet deep, and has a yield of 10 gallons per minute (gpm). We measured the static water level prior to our test at 24 feet below top of casing.

During our test we pumped an average of 9.7 gpm for 133 minutes. The water level in the well stabilized at 29 feet below top of casing. The well produced more than 1,200 gallons in less than four hours, exceeding the standard of 5 gpm for 4 hours. A water sample was analyzed for coliform bacteria, and found to be satisfactory.

The well appears to meet minimum protection requirements and separation distances. Please call if you have any questions or need additional information.

Sincerely,



Michael R. Erdman, P.E.



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**Well Flow Test Report**

Legal: L12/B2 Memory Lake Commercial  
 Project #: 09206  
 Date: 11/14/09

Well Depth: 55'  
 Tested By: SME

| Time (24 Hr) | Flow (Sec/2.5g) | Rate (gpm) | Cum. Flow (gallons) | Well Level | Notes:     |
|--------------|-----------------|------------|---------------------|------------|------------|
| 11:23        | 17.5            | 8.6        | 0                   | 24         | Start Flow |
| 11:43        | 15.4            | 9.7        | 183                 | 29         |            |
| 12:03        | 15.3            | 9.8        | 379                 | 29         |            |
| 13:16        | 15.2            | 9.9        | 1097                | 29         |            |
| 13:36        | 15.3            | 9.8        | 1293                | 29         | Stop Flow  |

Total Well Flow 1293 Gallons  
 Time of Flow 133 Minutes  
 Average Flow Rate 9.7 gpm

  
 Michael R. Erdman, P.E.

NOTES:

- 1) Well level measured from top of casing, to approx. nearest foot.
- 2) The results of this test show the condition of the well and pump on the day of testing. We cannot and do not predict nor guarantee the future performance of the well or pump. Although there was no obvious indication of a problem during our test, the well pump can fail at any time, and the yield of the well can decrease.
- 3) The flow test entails pumping much more water than is typically pumped during normal usage. As a result, the test can disturb sediment in the well and cause the water to become silty. The well will normally settle out over time, and the water will clear up. However, in some cases it may be necessary to have a well driller bail and/or redevelop the well.

THIS REPORT DOES NOT CONSTITUTE A WARRANTY OF ANY KIND.

# ERDMAN & ASSOCIATES

## DRINKING WATER ANALYSIS COLIFORM BACTERIA

### SECTION I.

COMPLETED BY PERSON TAKING THE SAMPLE

**ERDMAN & ASSOCIATES**

5200 Dunbar Drive  
Wasilla, AK 99654

Project: \_\_\_\_\_

Legal Description: Lot 12 Block 2

Subdivision MEMORY LK. COMMERCIAL

Private     Public water    PWSID \_\_\_\_\_

Repeat sample Lab reference # \_\_\_\_\_

COLLECTION INFORMATION

Date: 11/14/09    Time: 140 AM (PM)

Collected By: SME

Location: (Hose bib) Kitchen Sink, Bath Sink, Other \_\_\_\_\_

Delivered to Lab by: SME

### SECTION II.

COMPLETED BY LAB

LAB ID# 0911029

Date/Time Received: 11/15/09    1040 AM (PM)    Initial: MJE

Date/Time Test Set-up: 11/15/09    1040 AM (PM)    Initial: MJE

Comments: \_\_\_\_\_

| TEST                                  | READING * |        | DATE            | TIME        | INT'L      | RESULTS  |
|---------------------------------------|-----------|--------|-----------------|-------------|------------|--|
|                                       | PRESENT   | ABSENT |                 |             |            |  |
| Total Coliform<br>Read in 24-28 hours |           | ✓      | <u>11/16/09</u> | <u>1050</u> | <u>MJE</u> | <input checked="" type="checkbox"/> SATISFACTORY                             |
| E. Coli<br>Read in 24-28 hours        |           | ✓      |                 |             |            | <input type="checkbox"/> UNSATISFACTORY                                      |
|                                       |           |        |                 |             |            | <input type="checkbox"/> INCONCLUSIVE<br><i>Please submit another sample</i> |

\* Bacteria Present in or Absent from Water Sample, by Standard Method 9223.

### SECTION III.

NOTIFICATION / DISTRIBUTION

Date ADEC Notified (Public Positives Only): \_\_\_\_\_ Date Client Notified (Positives Only): \_\_\_\_\_

Comments: \_\_\_\_\_ Comments: \_\_\_\_\_

Faxed Copy:  Date: \_\_\_\_\_