



## King County

### Solid Waste Division

Department of Natural Resources and Parks

King Street Center  
201 South Jackson Street, Suite 701  
Seattle, WA 98104-3855

**206-296-6542** Fax 206-296-0197  
TTY Relay: 711

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October 8, 2009

Peter Christiansen, Regional Supervisor  
Solid Waste Program  
Washington State Department of Ecology  
Northwest Regional Office  
3190 - 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008-5452

*Puyallup Landfill*

*3QTR 2009*

RE: King County Rural Landfill Environmental Monitoring for Third Quarter 2009.

Dear Mr. Christiansen:

The purpose of this letter is to transmit a copy of the latest quarterly environmental report for the King County Rural Landfills for your review. This report includes environmental data collected from June 1, 2009 to August 31, 2009. As usual, note that the analytical laboratory results included in the quarterly report lag by approximately one month due to laboratory turnaround time.

This report includes tables comparing sample results with Groundwater Quality Criteria (WAC-173-200) and Federal Drinking Water Standards and summaries of organics detected for each landfill. This report complies with the October 7, 2005 memorandum from Seattle-King County Department of Public Health relating to quarterly reporting. Please note that the

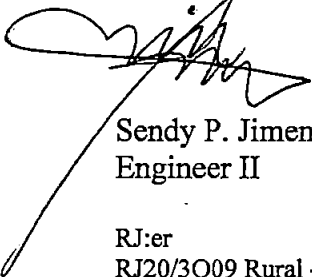
Vashon Landfill environmental monitoring is included in a stand-alone report to comply with reporting requirements outlined under WAC 173-351-415 (2).

Please note that starting with this quarterly report, chemical test data are now all analyzed by King County Environmental Laboratory (KCEL). All the qualifiers used on the lab report correspond with the qualifier tables dated effective April 1, 2009 included on this report.

Peter Christiansen  
October 8, 2009  
Page 2

If you have any questions, please call Anne F. Holmes, at 206-296-4424, or me at 206-296-4364.

Sincerely,



Sendy P. Jimenez  
Engineer II

RJ:er  
RJ20/3Q09 Rural - DOE - Final 100809

Enclosure

cc: Krystyna Kowalik, Environmental Hydrogeologist, Washington State Department of Ecology, Northwest Regional Office (WSDOE-NWRO)  
Yolanda Pon, Health and Environmental Investigator III, Public Health - Seattle and King County  
Kevin Kiernan, Division Director, Solid Waste Division (SWD), Department of Natural Resources and Parks (DNRP)  
Victor O. Okereke, Interim Engineering Services Section Manager, SWD, DNRP  
Anne Holmes, Supervising Engineer, SWD, DNRP  
Colleen Christensen, Engineer II, SWD, DNRP  
Tom Theno, Engineer II, SWD, DNRP

PUYALLUP  
Custodial Landfill

**King County  
Solid Waste Division  
Environmental Monitoring Data Report  
Rural Landfills  
Puyallup  
For Quarter Ending  
September 30, 2009**

**CONTENTS**

**QUARTERLY SAMPLING CHECKLIST  
WATER QUALITY STANDARDS TABLE & KC QUALIFIERS  
PUYALLUP ENVIRONMENTAL MONITORING DATA:**

- ☐ PUYALLUP GROUNDWATER EXCEEDANCE TABLE
- ☐ PUYALLUP GROUNDWATER VOLATILE DETECTIONS
- ☐ PUYALLUP GAS DATA (Probes)
- ☐ PUYALLUP MONITORING STATIONS – LOCATION MAP

QUARTERLY SAMPLING  
CHECKLIST

# PUYALLUP LANDFILL PERIODIC CHECKLIST

| WELL     | ENVIS ID | SAMPLER INITIALS | DATE      | DEPTH TO WATER (FEET) | CONDUCTANCE umhos/cm3 | pH   | REDOX mV | TEMP °C |
|----------|----------|------------------|-----------|-----------------------|-----------------------|------|----------|---------|
| PMW # 1A | WP1A     | TS               | 6/16/2009 | 76.73                 | 170                   | 6.30 | -7.6     | 12.0    |
| PMW # 1B | WP1B     | TS               | 6/16/2009 | 99.59                 | 205                   | 6.48 | -17.9    | 11.6    |
| PMW # 2  | WP2-     | LM               | 6/23/2009 | 127.49                | 720                   | 7.17 | -66.4    | 15.0    |
| PMW # 3B | WP3B     | LM               | 6/17/2009 | 113.92                | 400                   | 6.69 | -40.7    | 16.1    |
| PMW # 5  | WP5-     | LM               | 6/22/2009 | 5.92                  | 660                   | 6.50 | -32.1    | 10.6    |
| PMW # 6  | WP6-     | TS               | 6/23/2009 | 150.25                | 245                   | 7.22 | -56.7    | 11.2    |
| PMW # 8  | WP8-     | TS               | 6/9/2009  | 103.28                | 300                   | 6.96 | -46.4    | 12.0    |
| PMW # 9  | WP9-     | TS               | 6/17/2009 | 134.67                | 235                   | 6.69 | -29.6    | 11.4    |
| PMW # 10 | WP10     | TS               | 6/22/2009 | 144.18                | 340                   | 7.08 | -50.2    | 14.7    |
| PMW # 11 | WP11     | TS               | 6/23/2009 | 153.45                | 215                   | 6.88 | -37.8    | 10.6    |
| PMW # 12 | WP12     | LM               | 6/22/2009 | 154.52                | 270                   | 7.10 | -62.7    | 10.3    |
| PMW # 20 | WP20     | LM               | 6/23/2009 | 102.07                | 190                   | 6.54 | -33.8    | 11.9    |

# WATER QUALITY STANDARDS

# Water Quality Standards

| Analyte                                 | Federal Drinking Water Standards |           |              |                  | Ground Water Quality Criteria |           |             |
|-----------------------------------------|----------------------------------|-----------|--------------|------------------|-------------------------------|-----------|-------------|
|                                         | CAS No.                          | Eff. Date | MCL          | Ref.             | Criterion*                    | Eff. Date | Ref.        |
| <b>A. Inorganics</b>                    |                                  |           |              |                  |                               |           |             |
| Antimony                                | 7440-36-0                        | 17-Jan-84 | 0.006 mg/L   | FR v. 57 No. 138 | 0.006                         | 17-Jan-84 | WAC 173-200 |
| Arsenic c                               | 7440-38-2                        | 23-Jan-06 | 0.01 mg/L    | 66 FR 28342      | 0.00005                       | 01-Dec-90 | WAC 173-200 |
| Asbestos                                | 132207-33-1                      | 30-Jul-92 | 7 m/L        | FR v. 56 No. 20  | 7                             | 30-Jul-92 | WAC 173-200 |
| Barium                                  | 7440-39-3                        | 1-Jan-93  | 2.0 mg/L     | FR v. 56 No. 126 | 1.0                           | 01-Dec-90 | WAC 173-200 |
| Beryllium                               | 7440-41-7                        | 17-Jan-84 | 0.004 mg/L   | FR v. 57 No. 138 | 0.004                         | 17-Jan-84 | WAC 173-200 |
| Cadmium                                 | 7440-43-8                        | 30-Jul-92 | 0.005 mg/L   | FR v. 56 No. 20  | 0.005                         | 01-Dec-90 | WAC 173-200 |
| Chromium                                | 7440-47-3                        | 30-Jul-92 | 0.1 mg/L     | FR v. 56 No. 20  | 0.05                          | 01-Dec-90 | WAC 173-200 |
| Copper                                  | 7440-50-8                        | 7-Dec-92  | 1.3** mg/L   | FR v. 57 No. 125 | 1.0                           | 01-Dec-90 | WAC 173-200 |
| Cyanide                                 | 57-12-5                          | 17-Jan-84 | 0.2 mg/L     | FR v. 57 No. 138 | 0.2                           | 17-Jan-84 | WAC 173-200 |
| Fluoride                                | 18884-48-8                       | 2-Oct-87  | 4.0 mg/L     | 40 CFR 141       | 4.0                           | 01-Dec-80 | WAC 173-200 |
| Lead                                    | 7439-92-1                        | 7-Dec-92  | 0.015** mg/L | FR v. 57 No. 125 | 0.015                         | 01-Dec-80 | WAC 173-200 |
| Mercury                                 | 7439-97-8                        | 2-Apr-86  | 0.002 mg/L   | 40 CFR 141       | 0.002                         | 01-Dec-80 | WAC 173-200 |
| Nickel                                  | 7440-02-0                        | 17-Jan-84 | 0.1 mg/L     | FR v. 57 No. 138 | 0.1                           | 17-Jan-84 | WAC 173-200 |
| Nitrate                                 | 14797-55-8                       | 2-Apr-86  | 10.0 mg/L    | FR v. 56 No. 20  | 10.0                          | 01-Dec-90 | WAC 173-200 |
| Nitrate and Nitrite                     | 14797-55-8+14                    | 30-Jul-92 | 10.0 mg/L    | FR v. 56 No. 20  | 10.0                          | 30-Jul-92 | WAC 173-200 |
| Nitrite                                 | 14797-65-0                       | 30-Jul-92 | 1 mg/L       | FR v. 56 No. 20  | 1.0                           | 30-Jul-92 | WAC 173-200 |
| Selenium                                | 7782-49-2                        | 30-Jul-92 | 0.05 mg/L    | FR v. 56 No. 20  | 0.01                          | 01-Dec-90 | WAC 173-200 |
| Silver                                  | 7440-22-4                        |           |              |                  | 0.05                          | 01-Dec-90 | WAC 173-200 |
| Sodium                                  | 7440-23-5                        | 20-Sep-04 | 20*** mg/L   |                  | 20***                         | 03-Jul-04 | WAC 246-280 |
| Thallium                                | 7440-28-0                        | 17-Jan-84 | 0.002 mg/L   | FR v. 57 No. 138 | 0.002                         | 17-Jan-84 | WAC 173-200 |
| Total Coliforms                         |                                  | 24-Dec-75 | 1/100 mL     | 40 CFR 141       | 1/100                         | 01-Dec-80 | WAC 173-200 |
| Turbidity                               |                                  | 24-Dec-75 | 1 NTU        |                  | -                             | -         | -           |
| <b>B. Organic Chemicals</b>             |                                  |           |              |                  |                               |           |             |
| Alachlor                                | 15972-60-8                       | 30-Jul-92 | 2 ug/L       | FR v. 56 No. 20  | 2                             | 30-Jul-92 | WAC 173-200 |
| Alazine                                 | 1912-24-9                        | 30-Jul-92 | 3 ug/L       | FR v. 56 No. 20  | 3                             | 30-Jul-92 | WAC 173-200 |
| Benzene c                               | 71-43-2                          | 9-Jan-89  | 5 ug/L       | 40 CFR 141       | 1                             | 01-Dec-80 | WAC 173-200 |
| Bis(2-ethylhexyl)phthalate              | 117-81-7                         | 17-Jan-84 | 6 ug/L       | FR v. 57 No. 138 | 6                             | 01-Dec-80 | WAC 173-200 |
| Bromodichloromethane c                  | 75-27-4                          |           |              |                  | 0.3                           | 01-Dec-80 | WAC 173-200 |
| Bromoform c                             | 75-25-2                          |           |              |                  | 5                             | 01-Dec-80 | WAC 173-200 |
| Carbofuran                              | 1563-68-2                        | 30-Jul-92 | 40 ug/L      | FR v. 56 No. 20  | 40                            | 30-Jul-92 | WAC 173-200 |
| Carbon Tetrachloride c                  | 56-23-5                          | 9-Jan-89  | 5 ug/L       | 40 CFR 141       | 0.3                           | 01-Dec-90 | WAC 173-200 |
| Chlordane c                             | 5103-71-8                        | 30-Jul-92 | 2 ug/L       | FR v. 56 No. 20  | 0.06                          | 01-Dec-80 | WAC 173-200 |
| Chlorobenzene                           | 106-90-7                         | 30-Jul-92 | 100 ug/L     | FR v. 56 No. 20  | 100                           | 30-Jul-92 | WAC 173-200 |
| Chlorodibromomethane c                  | 124-46-1                         |           |              |                  | 0.5                           | 01-Dec-90 | WAC 173-200 |
| Chloroform c                            | 67-68-3                          |           |              |                  | 7                             | 01-Dec-80 | WAC 173-200 |
| 2,4-D                                   | 84-75-7                          | 30-Jul-92 | 70 ug/L      | FR v. 56 No. 20  | 70                            | 01-Dec-80 | WAC 173-200 |
| Dalapon                                 | 75-99-0                          | 17-Jan-84 | 200 ug/L     | FR v. 57 No. 138 | 200                           | 17-Jan-84 | WAC 173-200 |
| 1,2-Dibromo-3-chloropropane             | 98-12-8                          | 30-Jul-92 | 0.2 ug/L     | FR v. 56 No. 20  | 0.2                           | 30-Jul-92 | WAC 173-200 |
| 1,2-Dichlorobenzene                     | 95-50-1                          | 30-Jul-92 | 600 ug/L     | FR v. 56 No. 20  | 600                           | 30-Jul-92 | WAC 173-200 |
| 1,4-Dichlorobenzene c                   | 106-46-7                         | 9-Jan-89  | 75 ug/L      | 40 CFR 141       | 4                             | 01-Dec-80 | WAC 173-200 |
| 1,1-Dichloroethane c                    | 75-34-3                          |           |              |                  | 1                             | 01-Dec-90 | WAC 173-200 |
| 1,2-Dichloroethane c                    | 107-06-2                         | 9-Jan-89  | 5 ug/L       | 40 CFR 141       | 0.5                           | 01-Dec-90 | WAC 173-200 |
| 1,1-Dichloroethene                      | 75-35-4                          | 9-Jan-89  | 7 ug/L       | 40 CFR 141       | 7                             | 01-Dec-90 | WAC 173-200 |
| c-1,2-Dichloroethane                    | 156-59-2                         | 30-Jul-92 | 70 ug/L      | FR v. 56 No. 20  | 70                            | 30-Jul-92 | WAC 173-200 |
| t-1,2-Dichloroethane                    | 156-60-5                         | 30-Jul-92 | 100 ug/L     | FR v. 56 No. 20  | 100                           | 30-Jul-92 | WAC 173-200 |
| 1,2-Dichloropropane c                   | 78-87-5                          | 30-Jul-92 | 5 ug/L       | FR v. 56 No. 20  | 0.6                           | 01-Dec-90 | WAC 173-200 |
| 1,3-Dichloropropene tot. c              | 542-75-8                         |           |              |                  | 0.2                           | 01-Dec-90 | WAC 173-200 |
| Diethylhexyladipate                     | 103-23-1                         | 17-Jan-84 | 400 ug/L     | FR v. 57 No. 138 | 400                           | 17-Jan-84 | WAC 173-200 |
| Dinoseb                                 | 89-85-7                          | 17-Jan-84 | 7 ug/L       | FR v. 57 No. 138 | 7                             | 17-Jan-84 | WAC 173-200 |
| Diquat                                  | 231-36-7                         | 17-Jan-84 | 20 ug/L      | FR v. 57 No. 138 | 20                            | 17-Jan-84 | WAC 173-200 |
| Endosulf                                | 145-73-3                         | 17-Jan-84 | 100 ug/L     | FR v. 57 No. 138 | 100                           | 17-Jan-84 | WAC 173-200 |
| Endrin                                  | 72-20-8                          | 17-Jan-84 | 2 ug/L       | 40 CFR 141       | 0.2                           | 01-Dec-90 | WAC 173-200 |
| Ethylbenzene                            | 100-41-4                         | 30-Jul-92 | 700 ug/L     | FR v. 56 No. 20  | 700                           | 30-Jul-92 | WAC 173-200 |
| Ethylene dibromide c                    | 106-93-4                         | 30-Jul-92 | 0.05 ug/L    | FR v. 56 No. 20  | 0.001                         | 01-Dec-90 | WAC 173-200 |
| Glyphosate                              | 1071-83-8                        | 17-Jan-84 | 70 ug/L      | FR v. 57 No. 138 | 70                            | 17-Jan-84 | WAC 173-200 |
| Heptachlor c                            | 78-44-8                          | 30-Jul-92 | 0.4 ug/L     | FR v. 56 No. 20  | 0.02                          | 01-Dec-90 | WAC 173-200 |
| Heptachlor epoxide c                    | 1024-57-3                        | 30-Jul-92 | 0.2 ug/L     | FR v. 56 No. 20  | 0.009                         | 01-Dec-90 | WAC 173-200 |
| Hexachlorobenzene                       | 118-74-1                         | 17-Jan-84 | 1 ug/L       | FR v. 57 No. 138 | 0.05                          | 01-Dec-90 | WAC 173-200 |
| Hexachlorocyclopentadiene (HEX 77-47-4) | 17-47-4                          | 17-Jan-84 | 50 ug/L      | FR v. 57 No. 138 | 50                            | 17-Jan-84 | WAC 173-200 |
| Lindane c                               | 58-89-8                          | 30-Jul-92 | 0.2 ug/L     | FR v. 56 No. 20  | 0.06                          | 01-Dec-80 | WAC 173-200 |

# Water Quality Standards

| Analyte                                                  | CAS No.                   | Federal Drinking Water Standards |           |       | Ground Water Quality Criteria | Ref.  | Eff. Date | Ref.        |
|----------------------------------------------------------|---------------------------|----------------------------------|-----------|-------|-------------------------------|-------|-----------|-------------|
|                                                          |                           | CAS No.                          | Eff. Date | MCL   |                               |       |           |             |
| Methoxychlor                                             | 72-43-5                   | 30-Jul-92                        | 40        | ug/L  | 40                            | ug/L  | 30-Jul-92 | WAC 173-200 |
| Methylene Chloride c                                     | 75-08-2                   | 17-Jan-94                        | 5         | ug/L  | 5                             | ug/L  | 17-Jan-94 | WAC 173-200 |
| Oxamyl (Vydate)                                          | 23135-22-0                | 17-Jan-94                        | 200       | ug/L  | 200                           | ug/L  | 17-Jan-94 | WAC 173-200 |
| PAHs [Benzo(a)pyrene]                                    | 27323-18-8                | 17-Jan-94                        | 0.2       | ug/L  | 0.01                          | ug/L  | 17-Jan-94 | WAC 173-200 |
| PCBs c                                                   | 87-86-5                   | 30-Jul-92                        | 0.5       | ug/L  | 0.01                          | ug/L  | 01-Dec-90 | WAC 173-200 |
| Pentachlorophenol                                        | 1918-02-1                 | 1-Jan-93                         | 1         | ug/L  | 1                             | ug/L  | 01-Jan-93 | WAC 173-200 |
| Picloram                                                 | 122-34-9                  | 17-Jan-94                        | 500       | ug/L  | 500                           | ug/L  | 17-Jan-94 | WAC 173-200 |
| Simazine                                                 | 100-42-5                  | 30-Jul-92                        | 100       | ug/L  | 100                           | ug/L  | 30-Jul-92 | WAC 173-200 |
| Styrene                                                  | 127-18-4                  | 30-Jul-92                        | 5         | ug/L  | 0.0000006                     | ug/L  | 01-Dec-90 | WAC 173-200 |
| 2,3,7,8-Tetrachlorodibenzo-p-diox                        | 1746-01-6                 | 17-Jan-94                        | 3E-05     | ug/L  | 0.8                           | ug/L  | 30-Jul-92 | WAC 173-200 |
| Tetrachloroethylene c                                    | 109-88-3                  | 30-Jul-92                        | 1000      | ug/L  | 1000                          | ug/L  | 30-Jul-92 | WAC 173-200 |
| Toluene                                                  | 75-27-4                   | 75-25-29-Nov-79                  | 100       | ug/L  | -                             | -     | -         | -           |
| Total Trihalomethanes c                                  | 8001-35-2                 | 30-Jul-92                        | 3         | ug/L  | 0.08                          | ug/L  | 01-Dec-90 | WAC 173-200 |
| Toxaphene c                                              | 83-72-1                   | 30-Jul-92                        | 50        | ug/L  | 100                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| 2,4,5-TP                                                 | 120-82-1                  | 17-Jan-94                        | 70        | ug/L  | 70                            | ug/L  | 17-Jan-94 | WAC 173-200 |
| 1,2,4-Trichlorobenzene                                   | 71-55-6                   | 9-Jan-89                         | 200       | ug/L  | 200                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| 1,1,1-Trichloroethane                                    | 79-00-5                   | 17-Jan-94                        | 5         | ug/L  | 5                             | ug/L  | 17-Jan-94 | WAC 173-200 |
| 1,1,2-Trichloroethane                                    | 79-01-6                   | 9-Jan-89                         | 5         | ug/L  | 3                             | ug/L  | 01-Dec-90 | WAC 173-200 |
| Trichloroethylene (TCE) c                                | 75-01-4                   | 9-Jan-89                         | 2         | ug/L  | 0.02                          | ug/L  | 01-Dec-90 | WAC 173-200 |
| Vinyl chloride c                                         | 1330-20-7                 | 30-Jul-92                        | 10000     | ug/L  | 10000                         | ug/L  | 30-Jul-92 | WAC 173-200 |
| Xylenes (total)                                          |                           |                                  |           |       |                               |       |           |             |
| C. Radionuclides and Radioactivity                       |                           |                                  |           |       |                               |       |           |             |
| Radium 226 & Radium 228                                  | 13882-83-3                | 9-Jul-76                         | 5         | pCi/L | 5                             | pCi/L | 01-Dec-90 | WAC 173-200 |
| Radium 226                                               | 15282-20-1                |                                  | -         | -     | 3                             | pCi/L | 01-Dec-90 | WAC 173-200 |
| Radium 228                                               |                           |                                  | -         | -     | 5                             | pCi/L | 01-Dec-90 | WAC 173-200 |
| Gross Alpha particle activity                            |                           | 9-Jul-76                         | 15        | pCi/L | 15                            | pCi/L | 01-Dec-90 | WAC 173-200 |
| Tritium                                                  | 10028-17-8                | 9-Jul-76                         | 20,000    | pCi/L | 20,000                        | pCi/L | 01-Dec-90 | WAC 173-200 |
| Strontium                                                | 7440-24-8                 | 9-Jul-76                         | 8         | pCi/L | 8                             | pCi/L | 01-Dec-90 | WAC 173-200 |
| Gross Beta particle activity                             |                           | 9-Jul-76                         | 50        | pCi/L | 50                            | pCi/L | 01-Dec-90 | WAC 173-200 |
| D. Additional Carcinogens Listed in Groundwater Criteria |                           |                                  |           |       |                               |       |           |             |
| Acrylamide                                               | 79-06-1                   |                                  | -         | -     | 0.02                          | ug/L  | 01-Dec-90 | WAC 173-200 |
| Acrylonitrile                                            | 107-13-1                  |                                  | -         | -     | 0.07                          | ug/L  | 01-Dec-90 | WAC 173-200 |
| Aldrin                                                   | 309-00-2                  |                                  | -         | -     | 0.005                         | ug/L  | 01-Dec-90 | WAC 173-200 |
| Aniline                                                  | 62-53-3                   |                                  | -         | -     | 14                            | ug/L  | 01-Dec-90 | WAC 173-200 |
| Aramite                                                  | 140-57-8                  |                                  | -         | -     | 3                             | ug/L  | 01-Dec-90 | WAC 173-200 |
| Azobenzene                                               | 103-33-3                  |                                  | -         | -     | 0.7                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| Benzidine                                                | 62-87-5                   |                                  | -         | -     | 0.0004                        | ug/L  | 01-Dec-90 | WAC 173-200 |
| Benzo(a)pyrene                                           | 50-32-8                   |                                  | -         | -     | 0.008                         | ug/L  | 01-Dec-90 | WAC 173-200 |
| Benzotrichloride                                         | 98-07-7                   |                                  | -         | -     | 0.007                         | ug/L  | 01-Dec-90 | WAC 173-200 |
| Benzyl chloride                                          | 100-44-7                  |                                  | -         | -     | 0.5                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| Bis(chloroethyl)ether                                    | 111-44-4                  |                                  | -         | -     | 0.07                          | ug/L  | 01-Dec-90 | WAC 173-200 |
| Bis(chloromethyl)ether                                   | 542-88-1                  |                                  | -         | -     | 0.5                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| Carbazole                                                | 86-74-8                   |                                  | -         | -     | 0.0004                        | ug/L  | 01-Dec-90 | WAC 173-200 |
| 4-Chloro-2-methyl aniline                                | 95-69-2                   |                                  | -         | -     | 5                             | ug/L  | 01-Dec-90 | WAC 173-200 |
| 4-Chloro-2-methyl aniline hydrocl                        | 3165-83-3                 |                                  | -         | -     | 0.1                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| o-Chloronitrobenzene                                     | 88-73-3                   |                                  | -         | -     | 0.2                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| p-Chloronitrobenzene                                     | 109-00-5                  |                                  | -         | -     | 3                             | ug/L  | 01-Dec-90 | WAC 173-200 |
| Chlordane                                                | 1897-45-8                 |                                  | -         | -     | 5                             | ug/L  | 01-Dec-90 | WAC 173-200 |
| Diallate                                                 | 2303-16-4                 |                                  | -         | -     | 30                            | ug/L  | 01-Dec-90 | WAC 173-200 |
| DDT (includes DDE and DDD)                               | 50-29-3, 72-55-9, 72-54-8 |                                  | -         | -     | 1                             | ug/L  | 01-Dec-90 | WAC 173-200 |
| 1,2-Dibromomethane                                       | 106-93-4                  |                                  | -         | -     | 0.3                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| 3,3-Dichlorobenzidine                                    | 91-94-1                   |                                  | -         | -     | 0.001                         | ug/L  | 01-Dec-90 | WAC 173-200 |
| Dichloroves                                              | 62-73-7                   |                                  | -         | -     | 0.2                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| Dieldrin                                                 | 60-57-1                   |                                  | -         | -     | 0.3                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| 3,3-Dimethoxybenzidine                                   | 119-90-4                  |                                  | -         | -     | 0.005                         | ug/L  | 01-Dec-90 | WAC 173-200 |
| 3,5-Dimethylbenzidine                                    | 116-83-7                  |                                  | -         | -     | 6.0                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| 1,2-Dimethylhydrazine                                    | 540-73-8                  |                                  | -         | -     | 0.007                         | ug/L  | 01-Dec-90 | WAC 173-200 |
| 2,4-Dinitrotoluene                                       | 121-14-2                  |                                  | -         | -     | 60                            | ug/L  | 01-Dec-90 | WAC 173-200 |
| 2,6-Dinitrotoluene                                       | 608-20-2                  |                                  | -         | -     | 0.1                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| 1,4-Dioxane                                              | 123-91-1                  |                                  | -         | -     | 0.1                           | ug/L  | 01-Dec-90 | WAC 173-200 |
| 1,2-Diphenylhydrazine                                    | 122-66-7                  |                                  | -         | -     | 7                             | ug/L  | 01-Dec-90 | WAC 173-200 |
|                                                          |                           |                                  |           |       | 0.09                          | ug/L  | 01-Dec-90 | WAC 173-200 |

# Water Quality Standards

| Analyte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CAS No.             | Eff. Date | Federal Drinking | Ref.             | Ground Water     |            | Eff. Date | Ref.        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------|------------------|------------------|------------------|------------|-----------|-------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |           | Water Standards  |                  | Quality Criteria | Criterion* |           |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |           | MCL              |                  |                  |            |           |             |
| Direct Black 38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1937-37-7           | —         | —                |                  | 0.009            | ug/L       | 01-Dec-90 | WAC 173-200 |
| Direct Blue 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2602-46-2           | —         | —                |                  | 0.009            | ug/L       | 01-Dec-90 | WAC 173-200 |
| Direct Brown 95                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 16071-86-6          | —         | —                |                  | 0.009            | ug/L       | 01-Dec-90 | WAC 173-200 |
| Epichlorohydrin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 106-89-8            | —         | —                |                  | 8                | ug/L       | 01-Dec-90 | WAC 173-200 |
| Ethyl acrylate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 140-88-5            | —         | —                |                  | 2                | ug/L       | 01-Dec-90 | WAC 173-200 |
| Ethylene thiourea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 96-45-7             | —         | —                |                  | 2                | ug/L       | 01-Dec-90 | WAC 173-200 |
| Folpet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 133-07-3            | —         | —                |                  | 20               | ug/L       | 01-Dec-90 | WAC 173-200 |
| Furazolidone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 67-45-8             | —         | —                |                  | 0.02             | ug/L       | 01-Dec-90 | WAC 173-200 |
| Furium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 531-82-8            | —         | —                |                  | 0.002            | ug/L       | 01-Dec-90 | WAC 173-200 |
| Fumecyclo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 60568-05-0          | —         | —                |                  | 3                | ug/L       | 01-Dec-90 | WAC 173-200 |
| Hexachlorocyclohexane (alpha)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 319-84-6            | —         | —                |                  | 0.001            | ug/L       | 01-Dec-90 | WAC 173-200 |
| Hexachlorocyclohexane (technical)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 608-73-1            | —         | —                |                  | 0.05             | ug/L       | 01-Dec-90 | WAC 173-200 |
| Hexachlorodibenzo-p-dioxin, mix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 34465-46-8          | —         | —                |                  | 0.00001          | ug/L       | 01-Dec-90 | WAC 173-200 |
| Hydrazine/hydrazine sulfate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 302-01-2/10034-83-2 | —         | —                |                  | 0.03             | ug/L       | 01-Dec-90 | WAC 173-200 |
| 2-Methoxy-5-nitroaniline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 99-59-2             | —         | —                |                  | 2.0              | ug/L       | 01-Dec-90 | WAC 173-200 |
| 2-Methylaniline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 95-53-4             | —         | —                |                  | 0.2              | ug/L       | 01-Dec-90 | WAC 173-200 |
| 2-Methylaniline hydrochloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 636-21-5            | —         | —                |                  | 0.5              | ug/L       | 01-Dec-90 | WAC 173-200 |
| 4,4'-Methylene bis(N,N'-dimethyl)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 101-61-1            | —         | —                |                  | 2.0              | ug/L       | 01-Dec-90 | WAC 173-200 |
| Mirex                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2385-85-5           | —         | —                |                  | 0.05             | ug/L       | 01-Dec-90 | WAC 173-200 |
| Nitrofurazone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 59-87-0             | —         | —                |                  | 0.06             | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitrosodiethanolamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1116-54-7           | —         | —                |                  | 0.03             | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitrosodimethylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 55-19-5             | —         | —                |                  | 0.0005           | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitrosodimethylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 62-75-8             | —         | —                |                  | 0.002            | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitrosodiphenylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 86-30-6             | —         | —                |                  | 17.0             | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitroso-di-n-propylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 621-64-7            | —         | —                |                  | 0.01             | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitrosopyrrolidine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 930-55-2            | —         | —                |                  | 0.04             | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitroso-di-n-butylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 924-16-3            | —         | —                |                  | 0.02             | ug/L       | 01-Dec-90 | WAC 173-200 |
| N-Nitroso-N-methylethylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10595-95-6          | —         | —                |                  | 0.004            | ug/L       | 01-Dec-90 | WAC 173-200 |
| PBBs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 59536-65-1          | —         | —                |                  | 0.01             | ug/L       | 01-Dec-90 | WAC 173-200 |
| o-Phenylenediamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 95-54-5             | —         | —                |                  | 0.005            | ug/L       | 01-Dec-90 | WAC 173-200 |
| Propylene oxide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 75-56-9             | —         | —                |                  | 0.01             | ug/L       | 01-Dec-90 | WAC 173-200 |
| p,p,a,a-Tetrachlorotoluene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5216-25-1           | —         | —                |                  | 0.004            | ug/L       | 01-Dec-90 | WAC 173-200 |
| 2,4-Toluenediamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 95-80-7             | —         | —                |                  | 0.002            | ug/L       | 01-Dec-90 | WAC 173-200 |
| o-Toluidine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 95-53-4             | —         | —                |                  | 0.2              | ug/L       | 01-Dec-90 | WAC 173-200 |
| 2,4,6-Trichlorophenol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 88-06-2             | —         | —                |                  | 4.0              | ug/L       | 01-Dec-90 | WAC 173-200 |
| Trimethyl phosphate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 512-56-1            | —         | —                |                  | 2.0              | ug/L       | 01-Dec-90 | WAC 173-200 |
| Secondary Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |           |                  |                  |                  |            |           |             |
| Aluminum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 7429-90-5           | 30-Jul-92 | 0.05-0.2 mg/L    | FR v. 56 No. 20  | 0.05-0.2         | mg/L       | 30-Jul-92 | WAC 173-200 |
| Copper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7440-50-8           | 7-Dec-92  | 1.0 mg/L         | FR v. 57 No. 125 | 1.0              | mg/L       | 01-Dec-90 | WAC 173-200 |
| Iron                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 7439-89-6           | 2-Apr-86  | 0.3 mg/L         | 40 CFR 143       | 0.3              | mg/L       | 01-Dec-90 | WAC 173-200 |
| Manganese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7439-96-5           | 2-Apr-86  | 0.05 mg/L        | 40 CFR 143       | 0.05             | mg/L       | 01-Dec-90 | WAC 173-200 |
| Color                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     | 2-Apr-86  | 15 units         | 40 CFR 143       | 15               | units      | 01-Dec-90 | WAC 173-200 |
| pH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 12408-02-5          | 2-Apr-86  | 6.5-8.5 units    | 40 CFR 143       | 6.5-8.5          | units      | 01-Dec-90 | WAC 173-200 |
| Specific Conductivity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     | —         | —                |                  | 700              | uS/cm      |           | WAC 246-290 |
| Total Dissolved Solids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     | 2-Apr-86  | 500 mg/L         | 40 CFR 143       | 500              | mg/L       | 01-Dec-90 | WAC 173-200 |
| Chloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 16987-00-6          | 2-Apr-86  | 250 mg/L         | 40 CFR 143       | 250              | mg/L       | 01-Dec-90 | WAC 173-200 |
| Fluoride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 16984-48-8          | 2-Apr-86  | 2.0 mg/L         | 40 CFR 143       | p                |            |           |             |
| Silver                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7440-22-4           | 30-Jul-92 | 0.1 mg/L         | FR v. 56 No. 20  | p                |            |           |             |
| Sulfate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 14808-79-8          | 2-Apr-86  | 250 mg/L         | 40 CFR 143       | 250              | mg/L       | 01-Dec-90 | WAC 173-200 |
| Surfactants                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 2-Apr-86  | 0.5 mg/L         | 40 CFR 143       | 0.5              | mg/L       | 01-Dec-90 | WAC 173-200 |
| Corrosivity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 2-Apr-86  | non-corrosive    | 40 CFR 143       | non-corrosive    |            | 01-Dec-90 | WAC 173-200 |
| Odor-Threshold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     | 2-Apr-86  | 3 units          | 40 CFR 143       | 3                | units      | 01-Dec-90 | WAC 173-200 |
| Zinc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 7440-66-6           | 2-Apr-86  | 5.0 mg/L         | 40 CFR 143       | 5.0              | mg/L       | 01-Dec-90 | WAC 173-200 |
| NOTES: pCi/L=picocuries per liter      mg/L=milligrams per liter      m/L=million fibers per liter<br>p=Listed as a Primary Standard      —=no standard established      l=listed individually as groundwater criteria<br>c=Listed as a carcinogen in the Ground Water Criteria      MCL=Maximum Contaminant Level<br>*Criteria shall be the most stringent concentration of the Federal MCLG, MCL, or State MCL      MCLG= Maximum Contaminant Level Goal<br>**=treatment technique in lieu of an MCL      ***= A Drinking Water Advisory, not an enforceable standard.<br>Ground Water Quality Criteria=Water Quality Standards for Ground Waters of the State of Washington |                     |           |                  |                  |                  |            |           |             |

Compiled by KCSWD 1/12/84. Revised 10/5/09

# DATA QUALIFIERS

**KING COUNTY SOLID WASTE DIVISION**  
**QUALIFIER INFORMATION**  
*(Effective 4/1/2009)*

| QUAL | QUALIFIER DESCRIPTION                                                                  |
|------|----------------------------------------------------------------------------------------|
| U    | Undetected Analyte concentration <MDL – Less than Method detection limit               |
| T    | Estimated, Less than Reporting Detection Limit but greater than Method detection limit |
| J    | Reported value is an estimate                                                          |
| B    | Contamination present in Blank                                                         |
| C    | Confluent Growth                                                                       |
| E    | Estimated, outside expected accuracy                                                   |
| H    | Exceeds holding time                                                                   |
| R    | Data Rejected                                                                          |
| S    | Sample handling errors                                                                 |
| X    | Too numerous to count                                                                  |
| D    | Dilution                                                                               |
| P    | PASS – Qualitative result acceptable                                                   |
| F    | FAIL – Qualitative result is not acceptable                                            |
| G    | Greater than                                                                           |
| L    | Less than                                                                              |

PUYALLUP  
GROUNDWATER  
EXCEEDANCE TABLE

**PUYALLUP LANDFILL GW SUMMARY OF EXCEEDANCES (June 1, 2009 to August 31, 2009)**

| Parameter              |          | Site ID | Sample Date | Sample Value | Standard(s)<br>Exceeded |
|------------------------|----------|---------|-------------|--------------|-------------------------|
| pH Field               | pH Units | MW-1A   | 06/16/09    | 6.30         | F2, SGW                 |
|                        |          | MW-1B   | 06/16/09    | 6.48         | F2, SGW                 |
| Total Dissolved Solids | (mg/L)   | MW-2    | 06/23/09    | 511          | F2, SGW                 |
| Nitrate                | (mg/L)   | MW-2    | 06/23/09    | 17.5         | F1, SGW                 |
|                        |          | MW-3B   | 06/17/09    | 23.4         | F1, SGW                 |
| Arsenic                | (mg/L)   | MW-10   | 06/22/09    | 0.0104       | F1, SGW                 |
|                        |          | MW-11   | 06/23/09    | 0.00111      | SGW                     |
|                        |          | MW-5    | 06/22/09    | 0.00129      | SGW                     |
|                        |          | MW-6    | 06/23/09    | 0.00227      | SGW                     |
|                        |          | MW-8    | 06/09/09    | 0.0271       | F1, SGW                 |
| Iron                   | (mg/L)   | MW-12   | 06/22/09    | 0.702        | F2, SGW                 |
|                        |          | MW-3B   | 06/17/09    | 0.727        | F2, SGW                 |
|                        |          | MW-5    | 06/22/09    | 82 D         | F2, SGW                 |
|                        |          | MW-8    | 06/09/09    | 0.362        | F2, SGW                 |
| Manganese              | (mg/L)   | MW-10   | 06/22/09    | 0.808        | F2, SGW                 |
|                        |          | MW-3B   | 06/17/09    | 0.097        | F2, SGW                 |
|                        |          | MW-5    | 06/22/09    | 0.393        | F2, SGW                 |
|                        |          | MW-8    | 06/09/09    | 0.897 D      | F2, SGW                 |
| Benzene                | (ug/L)   | MW-5    | 06/22/09    | 4.69         | SGW                     |
| 1,4-Dichlorobenzene    | (ug/L)   | MW-5    | 06/22/09    | 8.26         | SGW                     |
| Vinyl Chloride         | (ug/L)   | MW-10   | 06/22/09    | 0.459        | SGW                     |
|                        |          | MW-3B   | 06/17/09    | 0.443        | SGW                     |
|                        |          | MW-5    | 06/22/09    | 0.123        | SGW                     |
|                        |          | MW-8    | 06/09/09    | 0.466        | SGW                     |

**F1** Primary Federal Drinking Water Quality Standard

**F2** Secondary Federal Drinking Water Quality Standard

**SGW** State of Washington Ground Water Quality Standard

See Data Qualifiers Section for Qualifier Information.

PUYALLUP  
GROUNDWATER  
VOLATILE DETECTIONS

PUYALLUP LANDFILL GW VOLATILE DETECTIONS (June 1, 2009 to August 31, 2009)

| Compound               | Site ID | Date    | ug/L   |
|------------------------|---------|---------|--------|
| Benzene                | MW-5    | 6/22/09 | 4.69   |
|                        | MW-8    | 6/9/09  | 0.2 T  |
| Chlorobenzene          | MW-5    | 6/22/09 | 13.8   |
| 1,2-Dichlorobenzene    | MW-5    | 6/22/09 | 1.43   |
| 1,4-Dichlorobenzene    | MW-5    | 6/22/09 | 8.26   |
| 1,2-Dichloroethane     | MW-8    | 6/9/09  | 0.33 T |
| cis-1,2-Dichloroethene | MW-10   | 6/22/09 | 3.22   |
|                        | MW-8    | 6/9/09  | 0.662  |
| Ethylbenzene           | MW-5    | 6/22/09 | 0.41   |
| Toluene                | MW-5    | 6/22/09 | 0.32 T |
| 1,1,1-Trichloroethane  | MW-20   | 6/23/09 | 0.558  |
| Vinyl Chloride         | MW-10   | 6/22/09 | 0.459  |
|                        | MW-3B   | 6/17/09 | 0.443  |
|                        | MW-5    | 6/22/09 | 0.123  |
|                        | MW-8    | 6/9/09  | 0.466  |
| Total Xylenes          | MW-5    | 6/22/09 | 0.771  |

DETECTIONS IN BLANKS (June 1, 2009 to August 31, 2009)

| Compound      | Site ID        | Date    | ug/L  |
|---------------|----------------|---------|-------|
| Chloromethane | VOA Trip Blank | 6/16/09 | 0.479 |

See Data Qualifiers Section for Qualifier Information.

PUYALLUP  
GAS PROBE DATA

King County Solid Waste Division  
Environmental Monitoring Data  
Data Collected from July 2009 to September 2009  
Puyallup Landfill—Gas Testing Results

| Sample Location | Sample Date/Time | CH4  |      | Sample Date/Time | CH4  |      | Sample Date/Time | CH4  |      | % Vol CO2 |     |      | % Vol O2 |      |      | Relative Pressure, In. H2O |        |        |
|-----------------|------------------|------|------|------------------|------|------|------------------|------|------|-----------|-----|------|----------|------|------|----------------------------|--------|--------|
|                 |                  | %Vol | %LEL |                  | %Vol | %LEL |                  | %Vol | %LEL | Jul       | Aug | Sept | Jul      | Aug  | Sept | Jul                        | Aug    | Sept   |
| GP-2 a          | 7/30/2009 9:23   | 0    | 0    | 8/31/2009 15:59  | 0    | 0    | 9/25/2009 14:59  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.8     | 20.7 | 20.7 | -9.60                      | -8.18  | -9.12  |
| GP-2 b          | 7/30/2009 9:24   | 0    | 0    | 8/31/2009 16:01  | 0    | 0    | 9/25/2009 15:01  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.9     | 20.8 | 20.7 | -4.65                      | -3.29  | -4.31  |
| GP-5            | 7/30/2009 9:16   | 0    | 0    | 8/31/2009 15:53  | 0    | 0    | 9/25/2009 14:51  | 0    | 0    | 2.3       | 2.9 | 2.2  | 18.6     | 18.8 | 19.4 | 0.29                       | -0.10  | 0.04   |
| GP-6 a          | 7/30/2009 9:35   | 0    | 0    | 8/31/2009 16:10  | 0    | 0    | 9/25/2009 15:24  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.8     | 20.8 | 20.6 | -11.36                     | -10.60 | -12.13 |
| GP-6 b          | 7/30/2009 9:38   | 0    | 0    | 8/31/2009 16:12  | 0    | 0    | 9/25/2009 15:26  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.6     | 20.8 | 20.6 | -3.14                      | -1.78  | -3.10  |
| GP-13           | 7/30/2009 8:45   | 0    | 0    | 8/31/2009 15:31  | 0    | 0    | 9/25/2009 14:16  | 0    | 0    | 0.5       | 0.3 | 0.5  | 20.2     | 20.4 | 20.3 | 0.06                       | 0.36   | 0.02   |
| GP-17 a         | 7/30/2009 9:05   | 0    | 0    | 8/31/2009 15:43  | 0    | 0    | 9/25/2009 14:40  | 0    | 0    | 0.1       | 0.1 | 0.0  | 20.4     | 20.4 | 20.6 | 0.14                       | 0.38   | -0.05  |
| GP-17 b         | 7/30/2009 9:07   | 0    | 0    | 8/31/2009 15:45  | 0    | 0    | 9/25/2009 14:42  | 0    | 0    | 0.3       | 0.3 | 0.3  | 20.3     | 20.3 | 20.3 | 0.02                       | -0.01  | -0.06  |
| GP-18           | 7/30/2009 9:20   | 0    | 0    | 8/31/2009 15:56  | 0    | 0    | 9/25/2009 14:55  | 0    | 0    | 0.2       | 0.0 | 0.1  | 20.6     | 20.5 | 20.6 | -1.25                      | -0.87  | -1.10  |
| GP-19 a         | 7/30/2009 9:29   | 0    | 0    | 8/31/2009 16:05  | 0    | 0    | 9/25/2009 15:16  | 0    | 0    | 2.2       | 2.6 | 2.6  | 19.0     | 19.0 | 18.4 | 0.06                       | 0.28   | 0.04   |
| GP-19 b         | 7/30/2009 9:31   | 0    | 0    | 8/31/2009 16:06  | 0    | 0    | 9/25/2009 15:19  | 0    | 0    | 0.0       | 2.8 | 2.4  | 20.8     | 18.9 | 18.8 | -5.26                      | -3.96  | -1.54  |
| GP-20 a         | 7/30/2009 8:39   | 0    | 0    | 8/31/2009 15:20  | 0    | 0    | 9/25/2009 14:09  | 0    | 0    | 0.1       | 0.2 | 1.9  | 20.5     | 20.3 | 19.1 | -1.21                      | -0.22  | -1.05  |
| GP-20 b         | 7/30/2009 8:41   | 0    | 0    | 8/31/2009 15:23  | 0    | 0    | 9/25/2009 14:12  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.5     | 20.6 | 20.8 | -2.25                      | -0.95  | -2.24  |
| GP-21 a         | 7/30/2009 8:55   | 0    | 0    | 8/31/2009 15:34  | 0    | 0    | 9/25/2009 14:27  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.5     | 20.6 | 20.7 | -1.73                      | -1.73  | -4.78  |
| GP-21 b         | 7/30/2009 8:57   | 0    | 0    | 8/31/2009 15:36  | 0    | 0    | 9/25/2009 14:29  | 0    | 0    | 0.2       | 0.7 | 0.8  | 20.0     | 18.3 | 18.2 | -3.42                      | -2.19  | -3.42  |
| GP-22 a         | 7/30/2009 9:11   | 0    | 0    | 8/31/2009 15:48  | 0    | 0    | 9/25/2009 14:45  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.5     | 20.7 | 20.8 | -4.17                      | -3.12  | -3.74  |
| GP-22 b         | 7/30/2009 9:13   | 0    | 0    | 8/31/2009 15:50  | 0    | 0    | 9/25/2009 14:47  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.5     | 20.8 | 20.8 | -6.28                      | -5.13  | -5.54  |
| MW-1            | 7/30/2009 9:01   | 0    | 0    | 8/31/2009 15:40  | 0    | 0    | 9/25/2009 14:35  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.6     | 20.7 | 20.7 | -1.78                      | -1.08  | -1.52  |
| MW-7 a          | 7/30/2009 8:48   | 0    | 0    | 8/31/2009 15:27  | 0    | 0    | 9/25/2009 14:19  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.5     | 20.6 | 20.9 | -2.28                      | -1.09  | -2.32  |
| MW-7 b          | 7/30/2009 8:50   | 0    | 0    | 8/31/2009 15:29  | 0    | 0    | 9/25/2009 14:23  | 0    | 0    | 0.0       | 0.0 | 0.0  | 20.5     | 20.6 | 20.6 | -2.49                      | -1.18  | -2.80  |

% LEL = Percent Lower Explosive Limit

Engineer, B. Keating

PUYALLUP

MONITORING STATIONS  
LOCATION MAP

