

SERVER

## GAS MIGRATION INVESTIGATION

## SWITZER WATER

| Switzer         | 5/28/2008 | 9/14/2008  | 9/27/2008  |
|-----------------|-----------|------------|------------|
|                 | Quantum   | Quantum    | Quantum    |
|                 | Pre-Drill | Post-Drill | Post-Drill |
| Coliform        |           | 0          | 0          |
| pH              | 8.86      | 7.6        | 6.56       |
| TSS             |           | <2.0       | <2.0       |
| TDS             | 128       | 130        | 155        |
| SPC             |           |            |            |
| Alkalinity      | 130       |            |            |
| Hardness        | 86        |            |            |
| Na              |           |            |            |
| Ca              |           |            |            |
| Chloride        | 14.3      | <2.00      | 7.61       |
| Fe              | <0.050    | <0.025     | 0.21       |
| Mg              |           | 6.32       | 6.48       |
| K               |           |            |            |
| Ba              | 0.229     |            |            |
| Al              |           |            |            |
| Mn              | 0.028     |            |            |
| Sr              |           |            |            |
| Hg              |           |            |            |
| Turbidity       |           |            |            |
| Nitrite-N       | <0.010    |            |            |
| Nitrate-N       | <1        |            |            |
| Se              |           |            |            |
| Tl              |           |            |            |
| Ni              |           |            |            |
| Cd              |           |            |            |
| Cr              |           |            |            |
| Sb              |           |            |            |
| Be              |           |            |            |
| As              |           |            |            |
| Sulfate         |           |            |            |
| Cu              | <0.025    |            |            |
| Zn              |           |            |            |
| Color           |           |            |            |
| Total Phosphoru | <0.05     |            |            |

|              |        |         |         |
|--------------|--------|---------|---------|
| MBAS         | <0.020 | <0.020  | <0.020  |
| Pb           | <0.001 |         |         |
| Sulfide      |        | 1.3     | <1.0    |
| Oil & Grease |        | <5.0    | <5.0    |
| Benzene      |        | <0.0005 | <0.0005 |
| Toluene      |        | <0.0005 | <0.0005 |
| Ethylbenzene |        | <0.0005 | <0.0005 |
| m,p-Xylenes  |        | <0.001  | <0.001  |
| o-Xylene     |        | <0.0005 | <0.0005 |
| MTBE         |        | <0.0005 | <0.0005 |
| LEL          |        | <1%     | <1%     |
|              |        |         |         |

| 12/17/2008 | 12/17/2008 | MCL     |
|------------|------------|---------|
| WSM        | WSM        |         |
| SAC 160    | SAC 161    |         |
| 0          | 0          |         |
|            |            | 6.5-8.5 |
|            |            |         |
|            |            | 500     |
|            |            |         |
|            |            |         |
|            |            |         |
|            |            |         |
|            |            | 250     |
|            |            | 0.3     |
|            |            |         |
|            |            |         |
|            | 0.245      | 2       |
|            | <0.2       | 0.2     |
|            | 0.029      | 0.05    |
|            | 0.668      |         |
|            | <0.0002    |         |
|            | 2.59 NTU   |         |
|            | <0.01      |         |
|            | 0.64       |         |
|            | <0.007     |         |
|            | <0.002     |         |
|            | <0.050     |         |
|            | <0.0002    |         |
|            | <0.004     |         |
|            | <0.002     |         |
|            | <0.001     |         |
|            | 0.0033     |         |
|            |            |         |
|            |            |         |
|            |            |         |
|            |            |         |
|            |            |         |

[illegible]

Date of Issue: 01/01/2009 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE 1

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 023 12/17/2008 Status: COMPLETED

Name of Sample Collector: Len Shebby  
Date Sample was Collected: 12/17/2008

County: Susquehanna State: PA  
Municipality: Dimock Twp

---

SWITZER  
CARTER RD  
DIMMOCK PA 18816-

---

Sample Medium: Water  
Sample Medium Type: Ground Water

Location: NOT INDICATED  
Reason: Routine Sampling

comlpaint

Appearance: fine

Field Tests

---

|                 |     |         |
|-----------------|-----|---------|
| Temperature     | 53  | C       |
| pH              | 7.1 | pH unit |
| Chlorine - Free | 0   | MG/L    |

---

(continued)

Date of Issue: 01/01/2009 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE 2

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 023 12/17/2008 Status: COMPLETED

(Flow Rates) Initial: Final: Units: Gal/Min E/M/C:  
Laboratory Sample ID: I2008044949 COMPLETED  
Standard Analysis: 160

Legal Seal: F042389 Intact: YES  
Legal Seal: F042390 Intact: YES

| Test/Codes CAS# - Description | Reported Results             | Date Approved |
|-------------------------------|------------------------------|---------------|
| Approver Test Method          |                              |               |
| 00940 CHLORIDE -IC            | 5.48 MG/L                    | 12/19/2008    |
| FVODOPIVEC EPA 300.0          |                              |               |
| 00945 SULFATE - IC            | 9.44 MG/L                    | 12/19/2008    |
| FVODOPIVEC EPA 300.0          |                              |               |
| 01042H COPPER T               | 4.100 UG/L                   | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                              |               |
| 01105H ALUMINUM T             | <10 UG/L                     | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                              |               |
| 00927A MAGNESIUM T            | 6.732 MG/L                   | 12/22/2008    |
| RWHEELER EPA 200.7            |                              |               |
| 00515 TDS @105 C              | 174. MG/L                    | 12/30/2008    |
| LWILKINSON USGS I-1749        |                              |               |
| 01045A IRON T                 | 294.000 UG/L                 | 12/22/2008    |
| RWHEELER EPA 200.7            |                              |               |
| 00929A SODIUM T               | 11.900 MG/L                  | 12/23/2008    |
| RWHEELER EPA 200.7            |                              |               |
| 01092A ZINC T                 | <10.0 UG/L                   | 12/22/2008    |
| RWHEELER EPA 200.7            |                              |               |
| 00080 COLOR                   | <5 PT/C                      | 12/18/2008    |
| TVOROBAYCH SM 2120B           |                              |               |
| 00403 pH                      | 8.0 pH units                 | 12/29/2008    |
| SHUTCHISON SM 4500H-B         |                              |               |
| ** Comment **                 | Time Limit For Test Exceeded |               |
| 01055A MANGANESE T            | 57.000 UG/L                  | 12/22/2008    |
| RWHEELER EPA 200.7            |                              |               |

(continued)

Date of Issue: 01/01/2009 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE

3

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 023 12/17/2008

Status: COMPLETED

\*\*\*\*\*  
The results of the analyses provided in this laboratory report relate only  
to the sample(s) identified in the report.

Taru Upadhyay, Technical Director, Bureau of Laboratories

\*\*\*\*\*

End of Report

Date of Issue: 12/30/2008 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE 1

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 024 12/17/2008 Status: COMPLETED

Name of Sample Collector: Len Shebby  
Date Sample was Collected: 12/17/2008

County: Susquehanna State: PA  
Municipality: Dimock Twp

SWITZER  
CARTER RD  
DIMMOCK PA 18816-

Sample Medium: Water  
Sample Medium Type: Ground Water

Location: NOT INDICATED  
Reason: Routine Sampling

comlpaint

Appearance: fine

Field Tests

|                 |     |         |
|-----------------|-----|---------|
| Temperature     | 53  | C       |
| pH              | 7.1 | pH unit |
| Chlorine - Free | 0   | MG/L    |

(continued)



Date of Issue: 12/30/2008 00:30:01  
 DEP Bureau Of Laboratories - Harrisburg  
 P.O. Box 1467  
 2575 Interstate Drive  
 Harrisburg , PA 17105-1467

PAGE 2

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
 Water Supply Management

Sample ID: 1236 024 12/17/2008 Status: COMPLETED

Laboratory Sample ID: I2008044950 COMPLETED  
 Standard Analysis: 161

Legal Seal: F042387 Intact: YES  
 Legal Seal: F042388 Intact: YES

| Test/Codes CAS# - Description | Reported Results | Date Approved |
|-------------------------------|------------------|---------------|
| Approver Test Method          |                  |               |
| 71900I MERCURY T              | <.2 UG/L         | 12/19/2008    |
| LOJEDA EPA 245.1              |                  |               |
| 82079A TURBIDITY              | 2.59 NTU         | 12/18/2008    |
| TVOROBAYCH EPA 180.1          |                  |               |
| 00615A NITRITE-N              | <.01 MG/L        | 12/24/2008    |
| AMCANENY EPA 353.2            |                  |               |
| 00620A Nitrate-N              | 0.64 MG/L        | 12/24/2008    |
| AMCANENY EPA 353.2            |                  |               |
| 01147H SELENIUM T             | <7 UG/L          | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                  |               |
| 01059H THALLIUM T             | <2 UG/L          | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                  |               |
| 01067A NICKEL T               | <50 UG/L         | 12/23/2008    |
| RWHEELER EPA 200.7            |                  |               |
| 01027H CADMIUM T              | <0.2 UG/L        | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                  |               |
| 01034H CHROMIUM T             | <4 UG/L          | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                  |               |
| 01097H ANTIMONY T             | <2.00 UG/L       | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                  |               |
| 01007A BARIUM T               | 245.000 UG/L     | 12/23/2008    |
| RWHEELER EPA 200.7            |                  |               |
| 01012A BERYLLIUM T            | <1.0 UG/L        | 12/23/2008    |
| RWHEELER EPA 200.7            |                  |               |
| 01002H ARSENIC T              | 3.300 UG/L       | 12/22/2008    |
| DSOLENBERG EPA 200.8          |                  |               |

(continued)

Date of Issue: 12/30/2008 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE

3

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 024 12/17/2008

Status: COMPLETED

\*\*\*\*\*  
The results of the analyses provided in this laboratory report relate only  
to the sample(s) identified in the report.

Taru Upadhyay, Technical Director, Bureau of Laboratories

\*\*\*\*\*

End of Report

Date of Issue: 12/30/2008 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE 1

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 025 12/17/2008 Status: COMPLETED

Name of Sample Collector: Len Shebby  
Date Sample was Collected: 12/17/2008

County: Susquehanna State: PA  
Municipality: Dimock Twp

---

SWITZER  
CARTER RD  
DIMMOCK PA 18816-

---

Sample Medium: Water  
Sample Medium Type: Ground Water

Location: NOT INDICATED  
Reason: Routine Sampling

complaint

Appearance: fine

Field Tests

---

|                 |     |         |
|-----------------|-----|---------|
| Temperature     | 53  | C       |
| pH              | 7.1 | pH unit |
| Chlorine - Free | 0   | MG/L    |

---

(continued)

Date of Issue: 12/30/2008 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE 2

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 025 12/17/2008 Status: COMPLETED

Laboratory Sample ID: B2008015095 Date Received: 12/18/2008 COMPLETED  
Standard Analysis: B001

Legal Seal: F042386 Intact: YES

| Test/Codes CAS# - Description | Reported Results | Date Approved |
|-------------------------------|------------------|---------------|
| Approver Test Method          |                  |               |
| -----                         | -----            | -----         |
| 31501 COLIFORM FIL            | 0 /100ML         | 12/19/2008    |
| FBABICZ SM 9222B              |                  |               |

(continued)

Date of Issue: 12/30/2008 00:30:01  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE 3

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Water Supply Management

Sample ID: 1236 025 12/17/2008 Status: COMPLETED

\*\*\*\*\*  
The results of the analyses provided in this laboratory report relate only  
to the sample(s) identified in the report.

Taru Upadhyay, Technical Director, Bureau of Laboratories

\*\*\*\*\*

End of Report

Date of Issue: 02/12/2009 13:04:19  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE

1

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Oil And Gas Mgmt

Sample ID: 4530 121 01/26/2009

Status: COMPLETED

Name of Sample Collector: Michael O'Donnell

Date Sample was Collected: 01/26/2009 11:30:00 AM

County: Susquehanna

State: PA

Municipality: Dimock Twp

---

VICTORIA SWITZER

PO BOX 113

DIMOCK PA 18816-

---

Sample Medium: Water

Sample Medium Type: Ground Water

Location: NOT INDICATED

Reason: Complaint

Sample taken from homeowners kitchen sink. Water was run for 5  
minutes before sample was taken.

Appearance: Sample appears clear

Laboratory Sample ID: O2009000387

Suite: METH

COMPLETED

(continued)

Date of Issue: 02/12/2009 13:04:19  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE 2

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Oil And Gas Mgmt

Sample ID: ` 4530 121 01/26/2009 Status: COMPLETED

Legal Seal: G039199 Intact: YES

| Test/Codes CAS# - Description | Reported Results | Date       |
|-------------------------------|------------------|------------|
| Approver Test Method          |                  | Approved   |
| 74828 Methane                 | 8200 UG/L        | 02/02/2009 |
| DACLEMENS                     |                  |            |
| 74851 Ethene                  | 19.8 UG/L (U)    | 02/02/2009 |
| DACLEMENS                     |                  |            |
| 74840 Ethane                  | 538 UG/L         | 02/02/2009 |
| DACLEMENS                     |                  |            |
| 74986 Propane                 | 31.9 UG/L        | 02/02/2009 |
| DACLEMENS                     |                  |            |

(continued)

Date of Issue: 02/12/2009 13:04:19  
DEP Bureau Of Laboratories - Harrisburg  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg , PA 17105-1467

PAGE

3

Contact Phone Number: (717) 346-7200

Analytical Report FOR  
Oil And Gas Mgmt

Sample ID: 4530 121 01/26/2009

Status: COMPLETED

\*\*\*\*\*  
The results of the analyses provided in this laboratory report relate only  
to the sample(s) identified in the report.

Taru Upadhyay, Technical Director, Bureau of Laboratories

\*\*\*\*\*

End of Report

(continued)



# ORGANICS LABORATORY QUALIFIERS

---

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit is reported.
- J - Indicates an estimated value, below the quantification limit, but above the method detection limit.
- N - Indicates presumptive evidence of a compound.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- P - This flag is used with a target analyte when there is greater than a 25% difference between the results obtained from the primary and confirmation columns for dual column analysis methods. (ie, pesticides, triazines, PCB's, etc). The reported value is the average of the two results.
- Q - This flag identifies the average of multiple results from multiple analysis, or the average of the averages of dual column analysis methods.
- (Underline) - The compound is present at the amount reported. No flag.
- X - Non-target analytes co-elute with compound. Identification unable to be confirmed.