



**Date of Issue:** 10/02/2023 07:26:51

**DEP Bureau of Laboratories - Harrisburg**  
P.O. Box 1467  
2575 Interstate Drive  
Harrisburg, PA 17105-1467

**Contact Phone Number: (717) 346-7200**

**NELAP - accredited by**

**NJ DEP - Laboratory Number: PA059**  
**PA DEP LAP - DEP Lab ID: 22-00223**

**Analytical Report For**  
**Oil And Gas Mgmt**

**Sample ID:** 9548 001

**Date Collected:** 09/11/2023 09:54:00 AM

**Lab Sample ID:** I2023014935

**Status:** Completed

**Name of Sample Collector:** Alan J Wolf

**Date Received:** 09/12/2023

**County:** Venango

**State:**

**Municipality:** Sugarcreek Boro

BELLOWS SPRING

RENO PA.

**Sample Medium:** Water

**Sample Medium Type:** Water

**Location:** Bellows Spring -BS1

**Reason:** Complaint

**Project:** NOT INDICATED

**Standard Analysis:** 946

**Matrix:** Water

|                    |         |                |     |
|--------------------|---------|----------------|-----|
| <b>Legal Seal:</b> | 1024015 | <b>Intact:</b> | Yes |
| <b>Legal Seal:</b> | 1024017 | <b>Intact:</b> | Yes |
| <b>Legal Seal:</b> | 1024016 | <b>Intact:</b> | Yes |

**Stream Condition:**

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| Test Codes / CAS # - Description  | Reported Results | Date And Time Analyzed | Approved by | Test Method    |
|---|------------------|------------------------|-------------|----------------|
| 00410 ALKALINITY AS CaCO3 @ pH 4.5  | 1.6 mg/L         | 09/12/2023 12:02 PM    | JAHOUE      | SM 2320B       |
| ** Comment ** Sample bottle had headspace present before analysis         |                  |                        |             |                |
| 01105H ALUMINUM, TOTAL (WATER & WASTE) ICPMS                              | 73.100 ug/L      | 09/13/2023 10:08 AM    | ELEEDY      | EPA 200.8      |
| 01002H ARSENIC, TOTAL (WATER & WASTE) BY ICPMS                            | <3.00 ug/L (U)   | 09/13/2023 10:08 AM    | ELEEDY      | EPA 200.8      |
| 01007M BARIUM, TOTAL in MG/L (WATER & WASTE) BY ICP                       | 0.068 mg/L       | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 71870 BROMIDE BY ION CHROMATOGRAPHY                                       | 0.485 mg/L       | 09/26/2023 12:24 AM    | TVOROBAYCH  | EPA 300.0      |
| 00916A CALCIUM, TOTAL (WATER & WASTE) BY ICP                              | 7.780 mg/L       | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 00900 HARDNESS, TOTAL (CALCULATED)  | 32 mg/L          | 09/13/2023 11:52 AM    | CREITMEYER  | SM 2340 B      |
| ** Comment ** Accredited by NJ only - accreditation not available from PA |                  |                        |             |                |
| 01045M IRON, TOTAL IN MG/L (WATER & WASTE) BY ICP                         | <0.100 mg/L (U)  | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 01132A LITHIUM, TOTAL (WATER & WASTE) BY ICP                              | <25.0 ug/L (U)   | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 00927A MAGNESIUM, TOTAL (WATER & WASTE) BY ICP                            | 3.04 mg/L        | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 01055M MANGANESE, TOTAL in MG/L (WATER & WASTE) BY ICP                    | 0.041 mg/L       | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 00403 pH, Lab (Electrometric)   | 5.7 pH units     | 09/12/2023 12:02 PM    | JAHOUE      | SM 4500-H+ B   |
| ** Comment ** Holding time exceeded                                       |                  |                        |             |                |
| 00937A POTASSIUM, TOTAL (WATER & WASTE) BY ICP                            | <1.00 mg/L (U)   | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 01147H SELENIUM, TOTAL (WATER & WASTE) BY ICPMS                           | <4.00 ug/L (U)   | 09/13/2023 10:08 AM    | ELEEDY      | EPA 200.8      |
| 00929A SODIUM, TOTAL (WATER & WASTE) BY ICP                               | 22.90 mg/L       | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 00095 SPECIFIC CONDUCTIVITY @ 25.0 C                                      | 211.00 umhos/cm  | 09/15/2023 02:16 PM    | MTUZINSKI   | SM 2510B       |
| 01082M STRONTIUM, TOTAL in MG/L (WATER & WASTE) BY ICP                    | 0.111 mg/L       | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |
| 00403T Temperature at which pH is measured                                | 18.57 C          | 09/12/2023 12:02 PM    | JAHOUE      | SM 4500-H+ B   |
| 00940 Total Chloride-Ion Chromatograph                                    | 50.91 mg/L       | 09/27/2023 01:38 AM    | TVOROBAYCH  | EPA 300.0      |
| 70300 TOTAL DISSOLVED SOLIDS @ 180C                                       | 144 mg/L         | 09/12/2023 10:00 AM    | JRONEMUS    | SM 2540C-15    |
| 00945 Total Sulfate-Ion Chromatograph                                     | 6.89 mg/L        | 09/26/2023 12:24 AM    | TVOROBAYCH  | EPA 300.0      |
| 00530 TOTAL SUSPENDED SOLIDS  | <20 mg/L (U)     | 09/12/2023 08:42 AM    | CLONTZ      | USGS I-3765-85 |
| 82079 TURBIDITY, NEPHELMETRIC   | <1 NTU (U)       | 09/12/2023 11:31 AM    | JAHOUE      | EPA 180.1      |
| 01092A ZINC, TOTAL (WATER & WASTE) BY ICP                                 | <30.0 ug/L (U)   | 09/13/2023 11:52 AM    | CREITMEYER  | EPA 200.7      |

The results of the analyses provided in this laboratory report relate only to the sample(s) identified therein. Unless otherwise noted, the results presented on this laboratory report meet all requirements of the 2016 TNI standard. Sample was in acceptable condition when received by the Laboratory. Any exceptions are noted in the report.

\* denotes tests that the laboratory is not accredited for

U - Indicates analysis was performed for the test but it was not detected. The sample quantitation limit is reported.

J - Indicates an estimated value, reported between Reporting Limit (RL) and Minimum Detection Limit (MDL).

Jennifer Fesler, Technical Director, Bureau of Laboratories

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