



**Date of Issue:** 12/22/2023 04:06:56

**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 005

**Date Collected:** 12/11/2023 01:12:00 AM

**Lab Sample ID:** I2023020122

**Status:** Completed

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

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

**County:** Venango

**State:**

**Municipality:** Sugarcreek Boro

BELLOWS SPRING

RENO PA.

**Sample Medium:** Water

**Sample Medium Type:** Water

**Location:** Bellows Spring -Composite

**Reason:** Complaint

**Project:** NOT INDICATED

**Standard Anlysis:** 946

**Matrix:** Water

<b>Legal Seal:</b> I206270	<b>Intact:</b> Yes
<b>Legal Seal:</b> I206271	<b>Intact:</b> Yes
<b>Legal Seal:</b> I206272	<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	0.2 mg/L	12/20/2023 10:53 AM	JAHOQUE	SM 2320B
** Comment ** Sample bottle had headspace present before analysis				
ANSWER RECHECKED BY ANALYST				
01105H ALUMINUM, TOTAL (WATER & WASTE) ICPMS	317.000 ug/L	12/13/2023 02:23 PM	ELEEDY	EPA 200.8
01002H ARSENIC, TOTAL (WATER & WASTE) BY ICPMS	<3.00 ug/L (U)	12/13/2023 02:23 PM	ELEEDY	EPA 200.8
01007M BARIUM, TOTAL in MG/L (WATER & WASTE) BY ICP	0.171 mg/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
71870 BROMIDE BY ION CHROMATOGRAPHY	1.312 mg/L	12/21/2023 02:59 AM	TVOROBAYCH	EPA 300.0
00916A CALCIUM, TOTAL (WATER & WASTE) BY ICP	18.200 mg/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
00900 HARDNESS, TOTAL (CALCULATED)	72 mg/L	12/13/2023 11:34 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)	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
01132A LITHIUM, TOTAL (WATER & WASTE) BY ICP	<25.0 ug/L (U)	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
00927A MAGNESIUM, TOTAL (WATER & WASTE) BY ICP	6.34 mg/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
01055M MANGANESE, TOTAL in MG/L (WATER & WASTE) BY ICP	0.183 mg/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
00403 pH, Lab (Electrometric)	5.3 pH units	12/20/2023 10:53 AM	JAHOQUE	SM 4500-H+ B
** Comment ** Holding time exceeded				
ANSWER RECHECKED BY ANALYST				
00937A POTASSIUM, TOTAL (WATER & WASTE) BY ICP	1.36 mg/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
01147H SELENIUM, TOTAL (WATER & WASTE) BY ICPMS	<4.00 ug/L (U)	12/13/2023 02:23 PM	ELEEDY	EPA 200.8
00929A SODIUM, TOTAL (WATER & WASTE) BY ICP	62.90 mg/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
00095 SPECIFIC CONDUCTIVITY @ 25.0 C	508.00 umhos/cm	12/14/2023 01:57 PM	MTUZINSKI	SM 2510B
01082M STRONTIUM, TOTAL in MG/L (WATER & WASTE) BY ICP	0.282 mg/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7
00403T Temperature at which pH is measured	18.79 C	12/20/2023 10:53 AM	JAHOQUE	SM 4500-H+ B
ANSWER RECHECKED BY ANALYST				
00940 Total Chloride-Ion Chromatograph	145.08 mg/L	12/21/2023 05:53 AM	TVOROBAYCH	EPA 300.0
70300 TOTAL DISSOLVED SOLIDS @ 180C	290 mg/L	12/12/2023 09:35 AM	JRONEMUS	SM 2540C-15
00945 Total Sulfate-Ion Chromatograph	6.13 mg/L	12/21/2023 02:59 AM	TVOROBAYCH	EPA 300.0
00530 TOTAL SUSPENDED SOLIDS	<20 mg/L (U)	12/12/2023 01:40 PM	CLONTZ	USGS I-3765-85
82079 TURBIDITY, NEPHELMETRIC	<1 NTU (U)	12/13/2023 08:54 AM	JAHOQUE	EPA 180.1
ANSWER RECHECKED BY ANALYST				
01092A ZINC, TOTAL (WATER & WASTE) BY ICP	39.00 ug/L	12/13/2023 11:34 AM	CREITMEYER	EPA 200.7

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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