# Bridgeton Landfill, LLC

# **Weekly Data Submittal**

Week of January 4, 2015 - January 10, 2015

Required by Section 52.F of Agreed Order, Case No. 13SL-CC01088 Effective May 13, 2013

#### **Contents**:

Attachment A – Leachate Levels in Leachate Collection Sumps

Attachment B – Temperature Monitoring Probe Analytical Charts

Attachment C – Gas Interceptor Wellhead Temperature Graphs

Attachment D – Neck-Area Gas Extraction Wellhead Temperature Graphs

#### **Provided Separately:**

- Leachate Level in Leachate Collection Sump Raw Data Excel Spreadsheet
- Temperature Monitoring Probe Raw Data Excel Spreadsheet
- Gas Interceptor Well Reading Raw Data Excel Spreadsheet
- Neck-Area Gas Extraction Well Data Excel Spreadsheet

#### **Commentary on Data**

#### Attachment A – Leachate Levels in Leachate Collection Sumps

Leachate Collection Sump (LCS)-1D, -5A, and -6B were partially or fully operational during the weekly reporting period. LCS-1D, while operational at the time of inspection, has a broken transducer.

The pump in LCS-2D was off during the weekly monitoring event due to an "over current" error.

The transducer melted in LCS-3D in March 2014 and is currently non-operational.

LCS-4B well casing was lowered the week of December 29, 2014, and a PC pump installed. Although the pump has returned to operational status, the transducer has not been installed yet, so no water level information is available at this time.

#### **Attachment B - Temperature Monitoring Probe Analytical Charts**

The following TMPs indicated generally consistent profiles to previous observations: TMP-1, -2, -3, -4, -6, -8, -9, -10, -11, -14, -16, -17, and -18. However, it should be noted that the 100-foot interval in TMP-14 increased slightly in the latest reading.

TMP-5, -7, -7R, -12, -13, and -15 have been removed from the presentation based on unreliable thermocouple measurements or other documented issues.

#### **Attachment C - Gas Interceptor Wellhead Temperature Graphs**

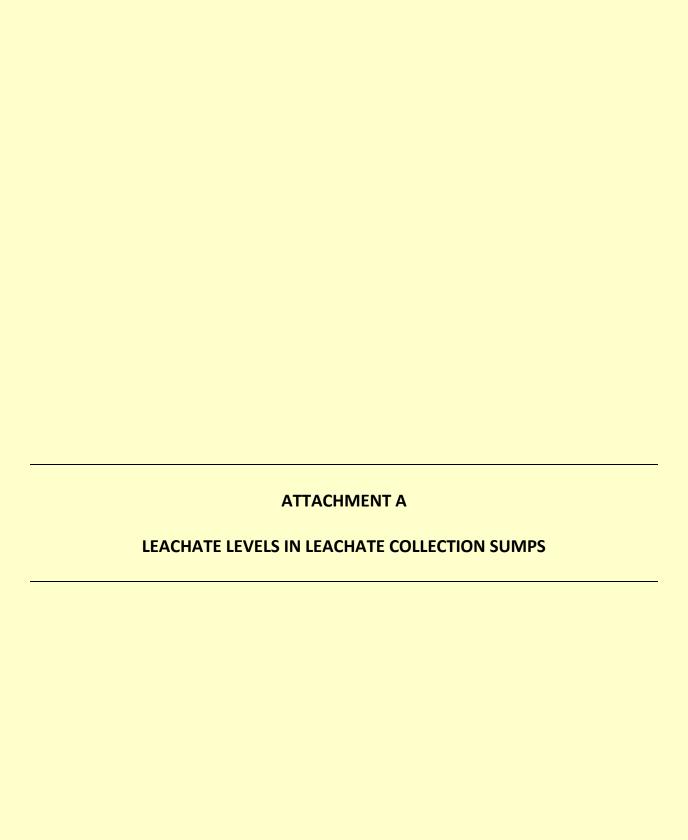
There are currently water circulation cooling loops installed in seven Gas Interceptor Wells (GIWs) (GIW-2 through GIW-7, as well as GIW-10). Wellhead gas temperatures in these wells are all in the low to mid 40-50°F range.

For the remaining six wells without a cooling system installed (GIW-1, -8, -9, -11, -12, and -13), with the exception of GIW-11, gas temperatures were generally consistent over the past week as well as compared to prior weeks. GIW-11 has been experiencing 20-30 degree fluctuations in gas temperature, which is likely due to its proximity to GIW series wells with cooling loops installed. Note that only one round of gas monitoring was done at the GIWs during the week due to weather and scheduling issues.

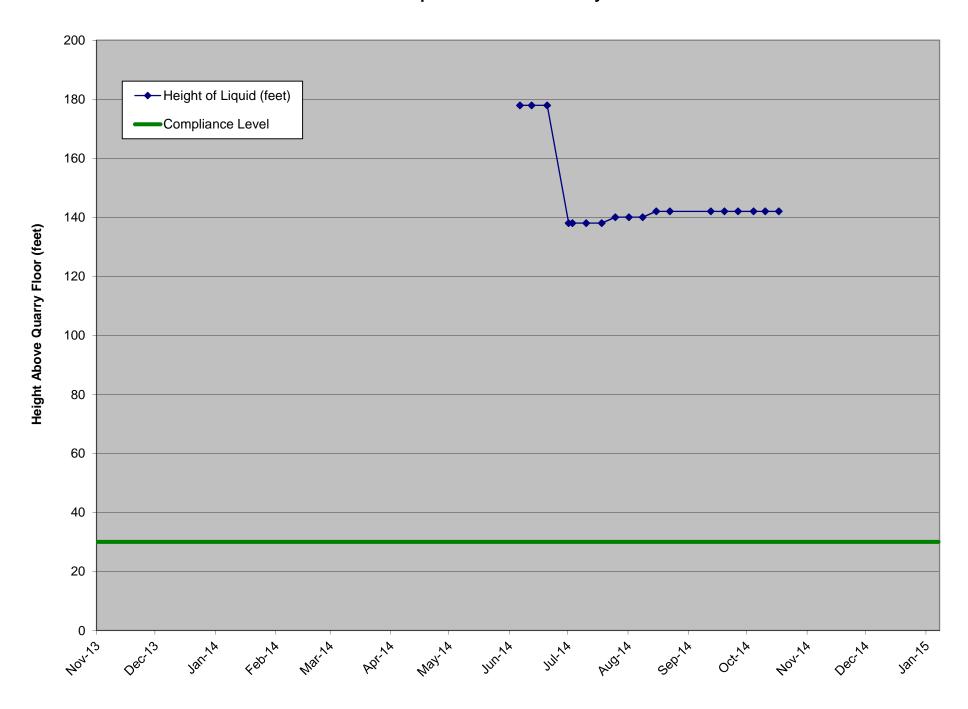
#### Attachment D - Neck Area Gas Extraction Well Data

Weekly gas temperature data is being collected for select gas extraction wells (GEWs) located in the neck area of the landfill. These wells include GEW-08, -09, -10, -38, -39, -40, -41R, -43R, -53, -54, -55, -56R, -109, and -110. Over the past week all 14 wells were monitored and all well temperatures were consistent in comparison to prior weeks, with the exception of GEW-110, which experienced a decrease in temperature back down to previous ambient conditions which is likely due to well flooding causing a lack of gas flow in this well.

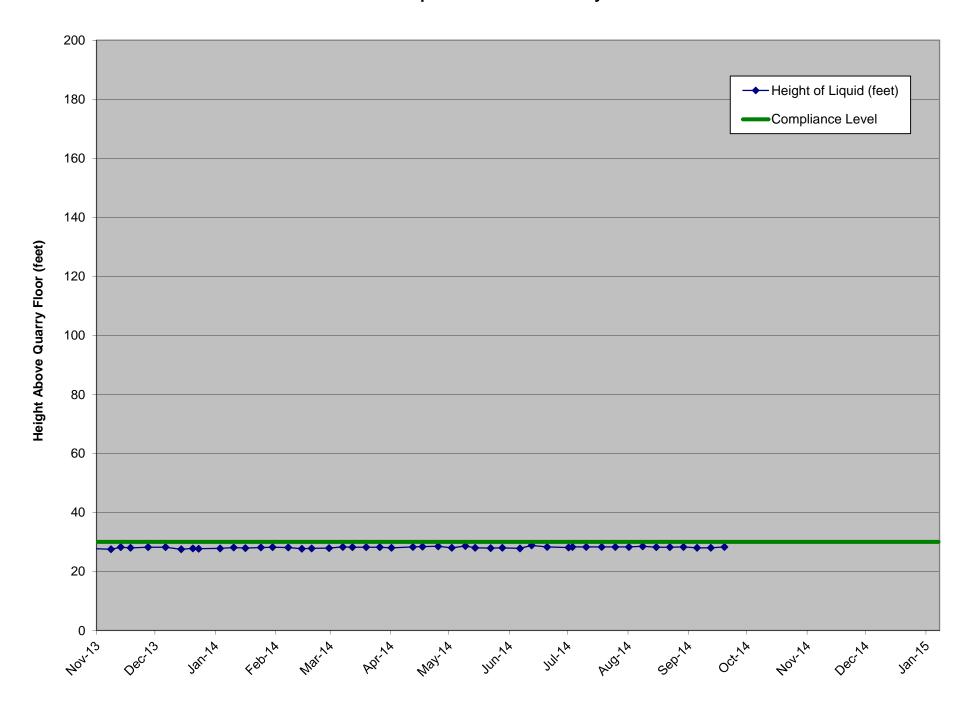
<u>Note to Data Commentary:</u> This report includes data collected and reported pursuant to the requirements of the Agreed Order, as amended, together with additional data that Bridgeton Landfill has agreed to include in the weekly reports. This report does not incorporate any changes based upon MDNR's letter received late on December 26, 2014, which is currently undergoing technical review.



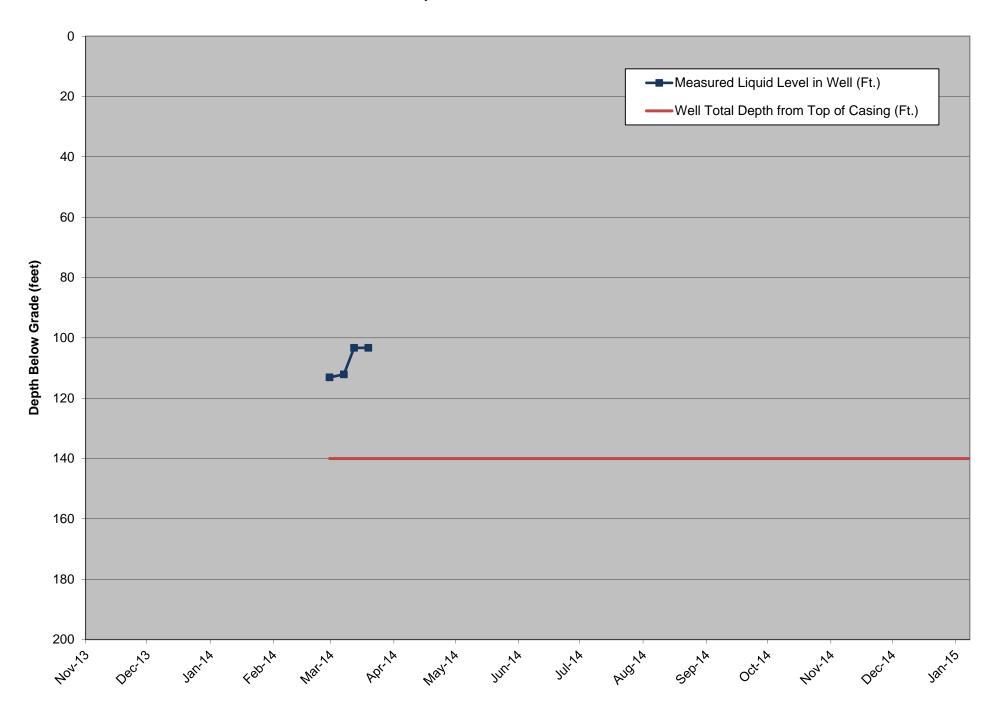
#### **LCS-1D Liquid Level Above Quarry Floor**



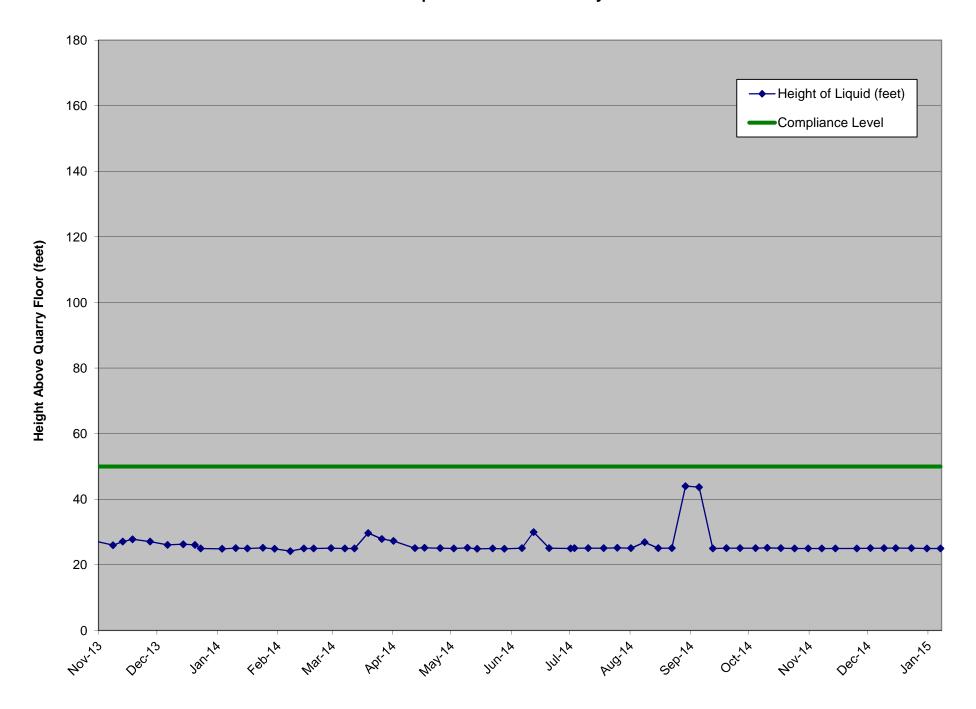
### **LCS-2D Liquid Level Above Quarry Floor**



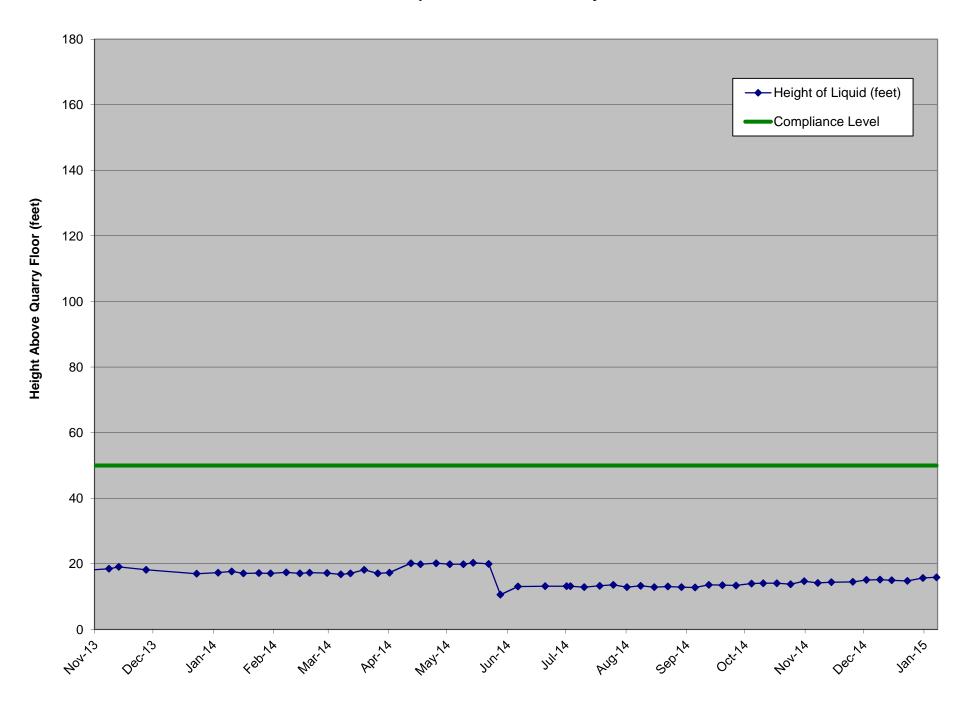
#### LCS-3D Liquid Level Below Ground Surface

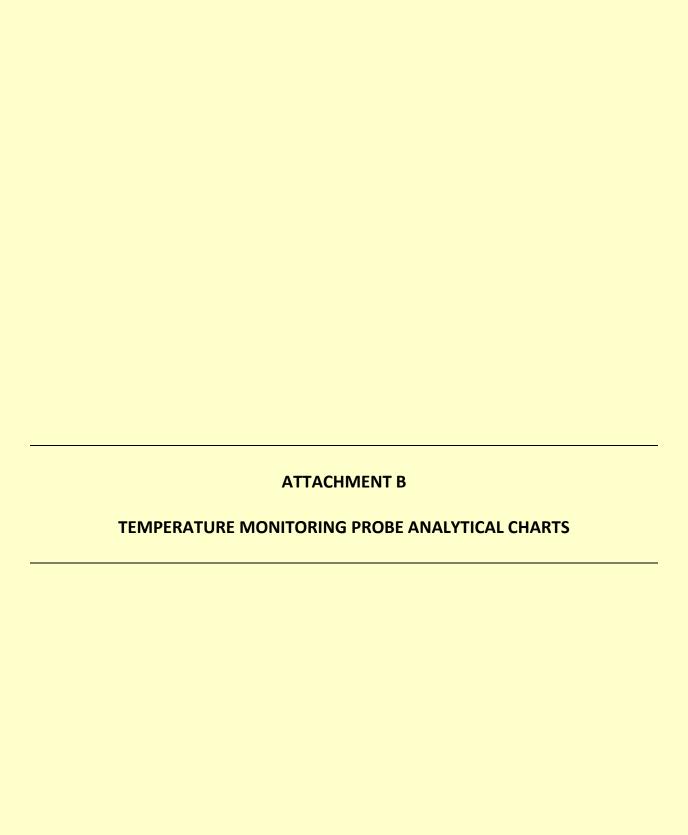


### **LCS-5A Liquid Level Above Quarry Floor**

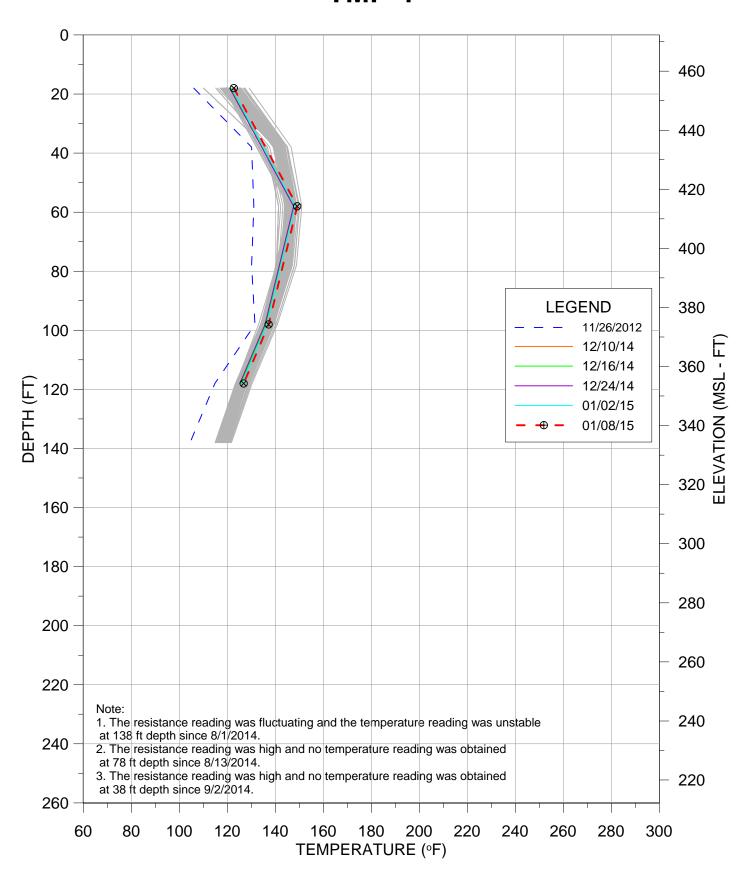


### **LCS-6B Liquid Level Above Quarry Floor**

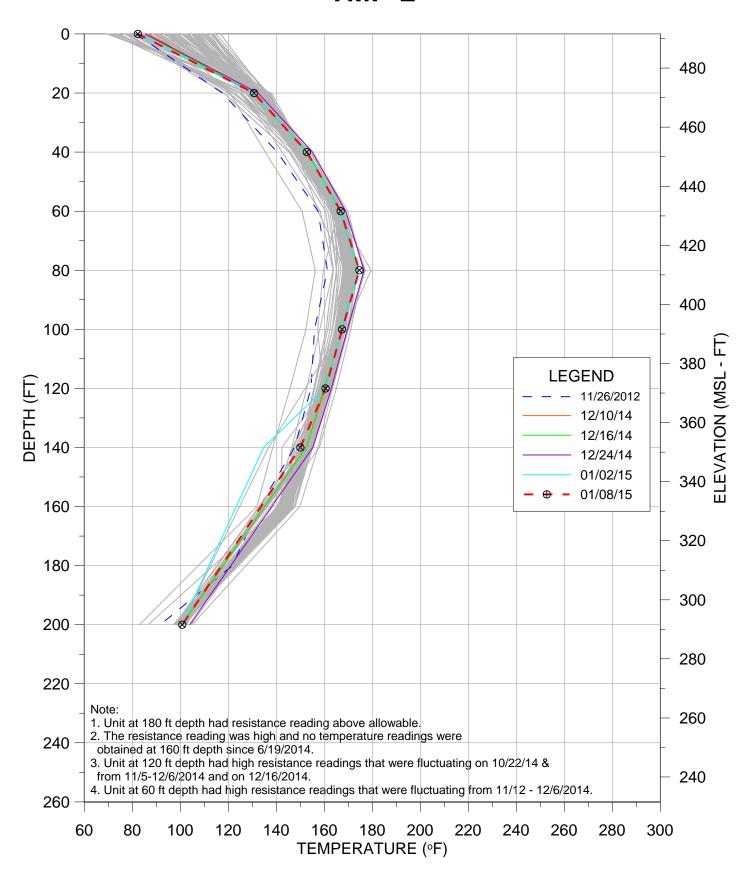




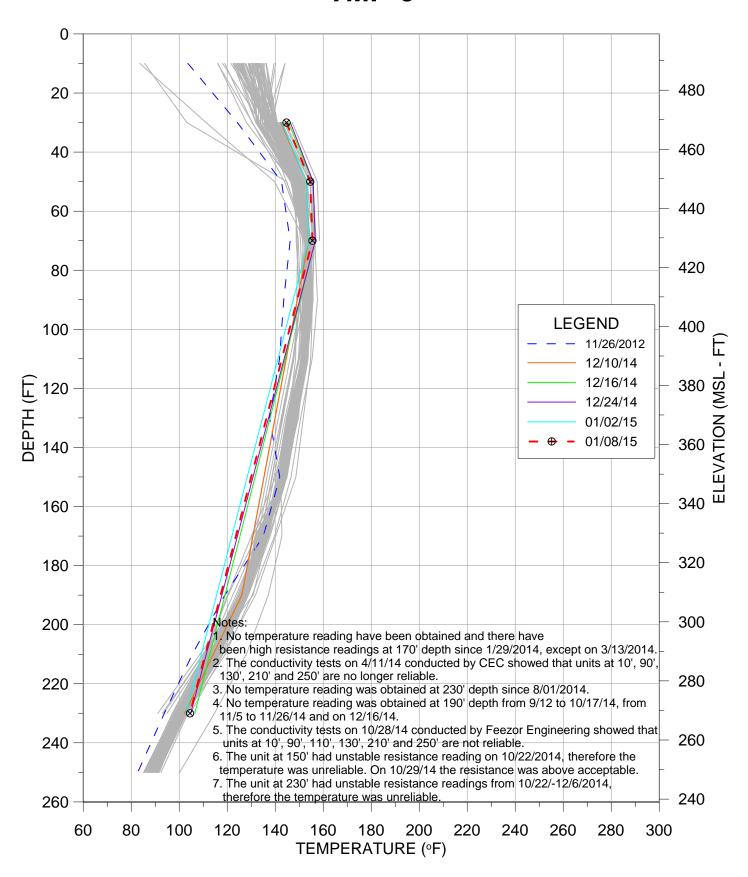
**TMP-1** 



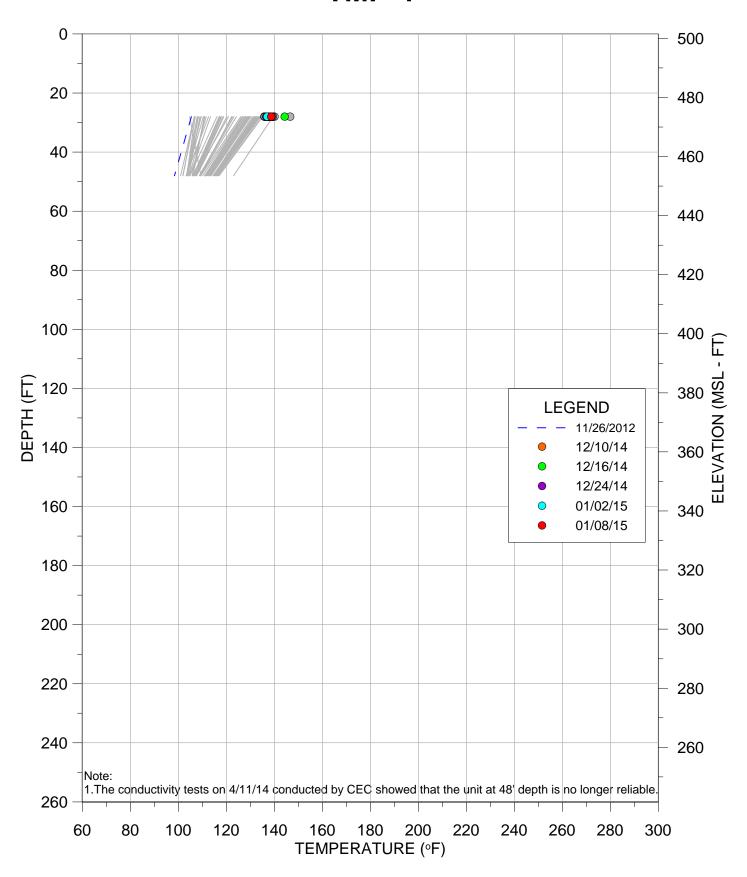
**TMP-2** 



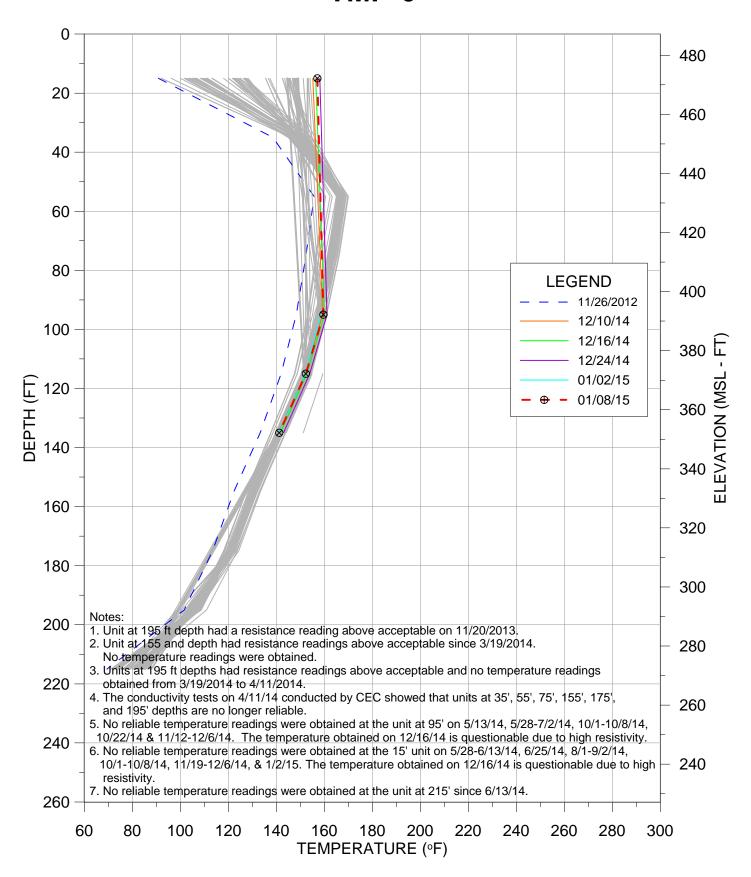
**TMP-3** 



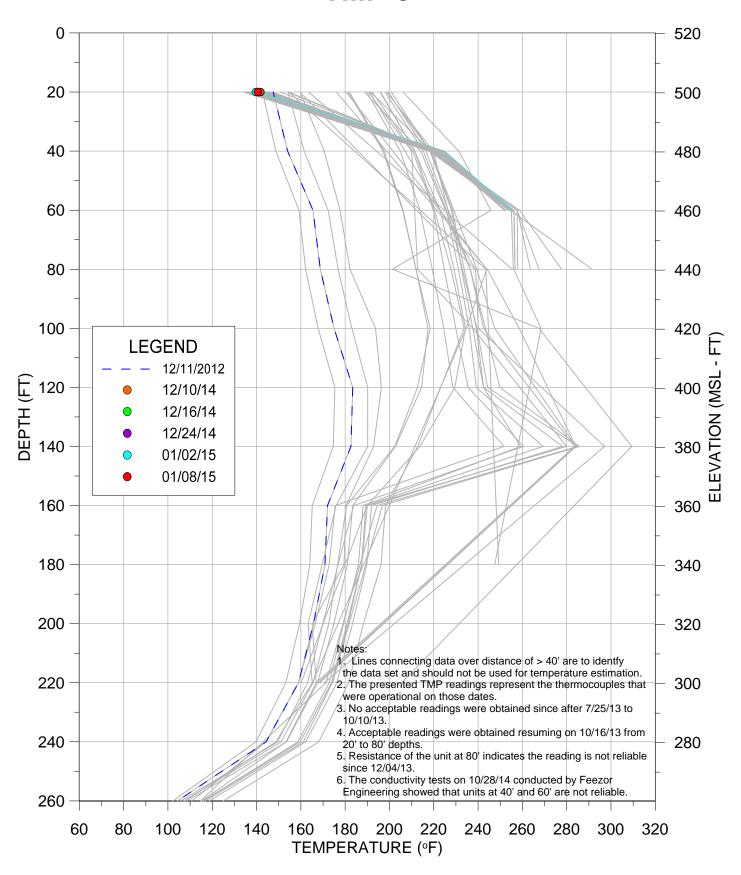
**TMP-4** 



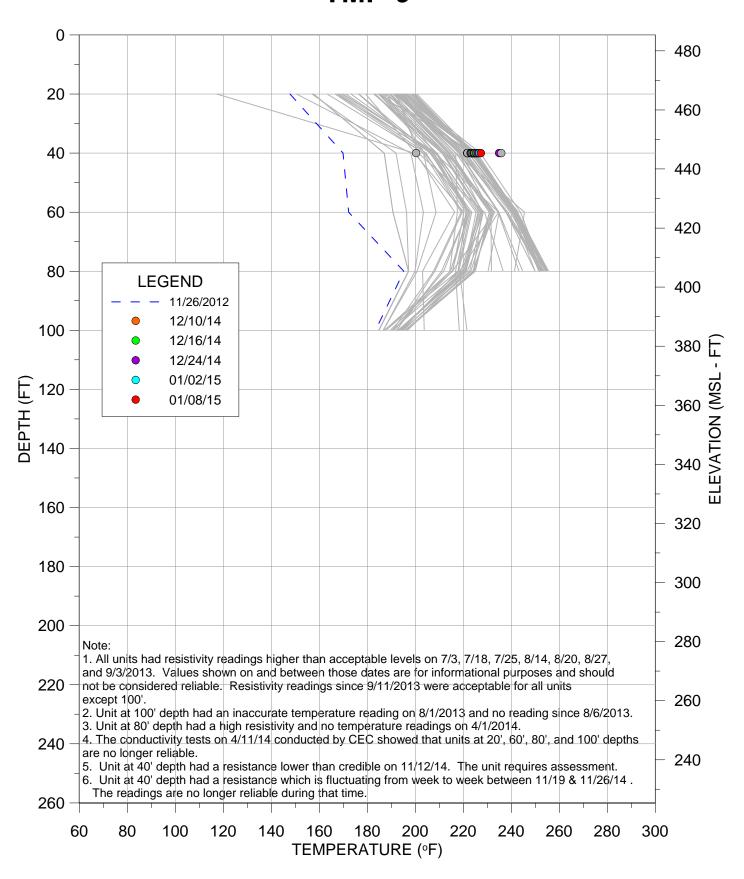
TMP-6



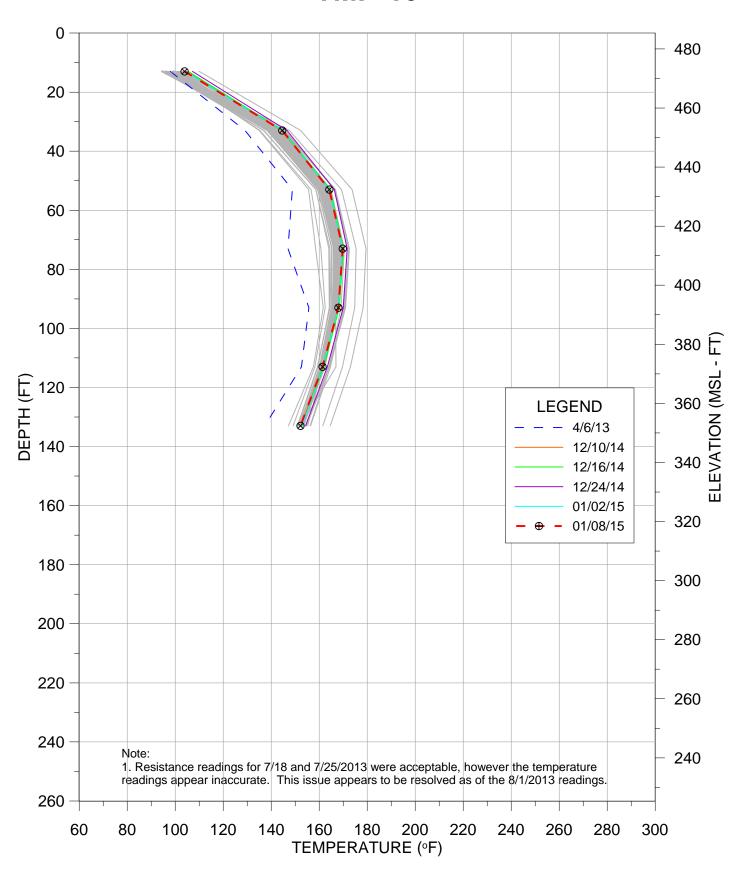
**TMP-8** 



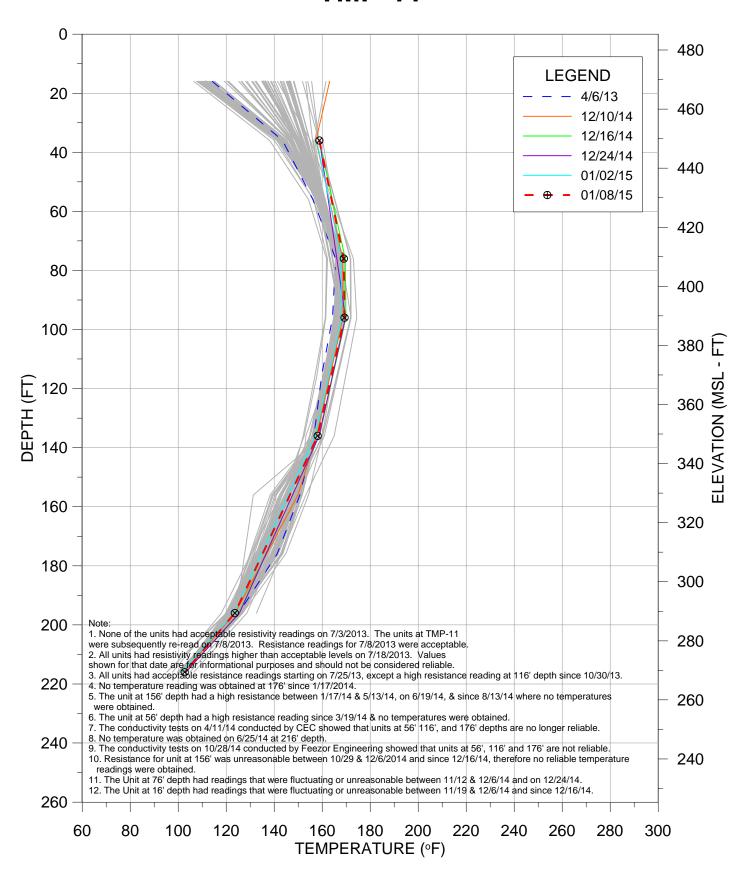
**TMP-9** 



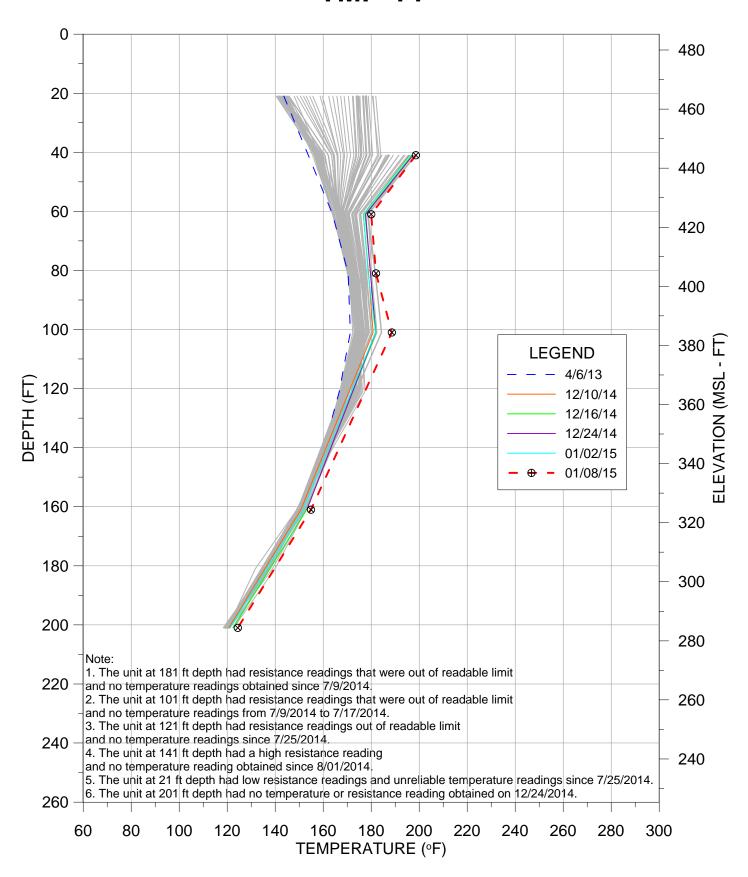
**TMP-10** 



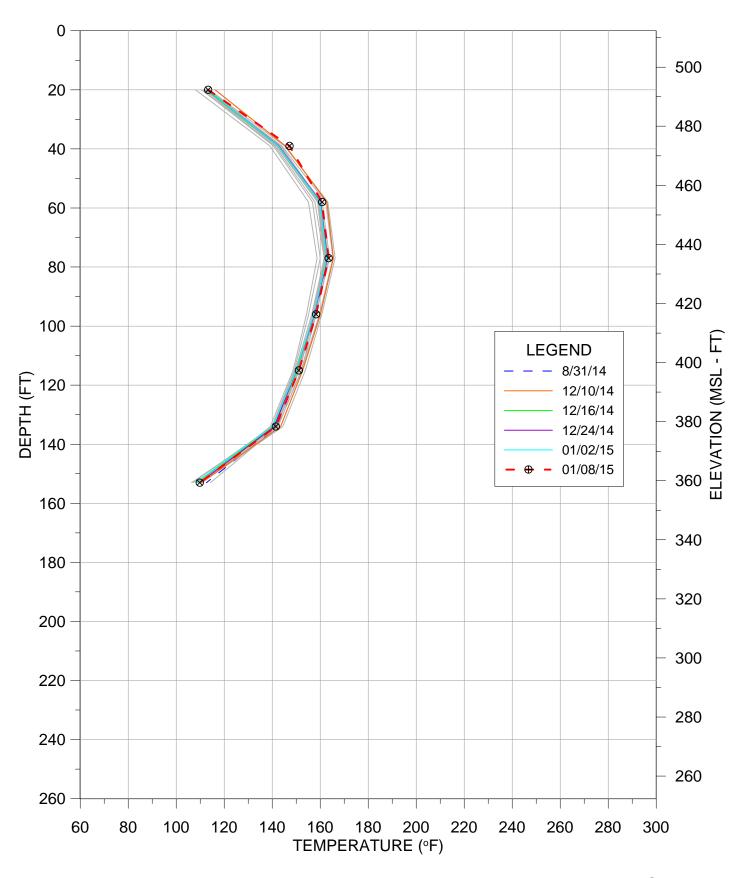
# **TMP-11**



**TMP-14** 

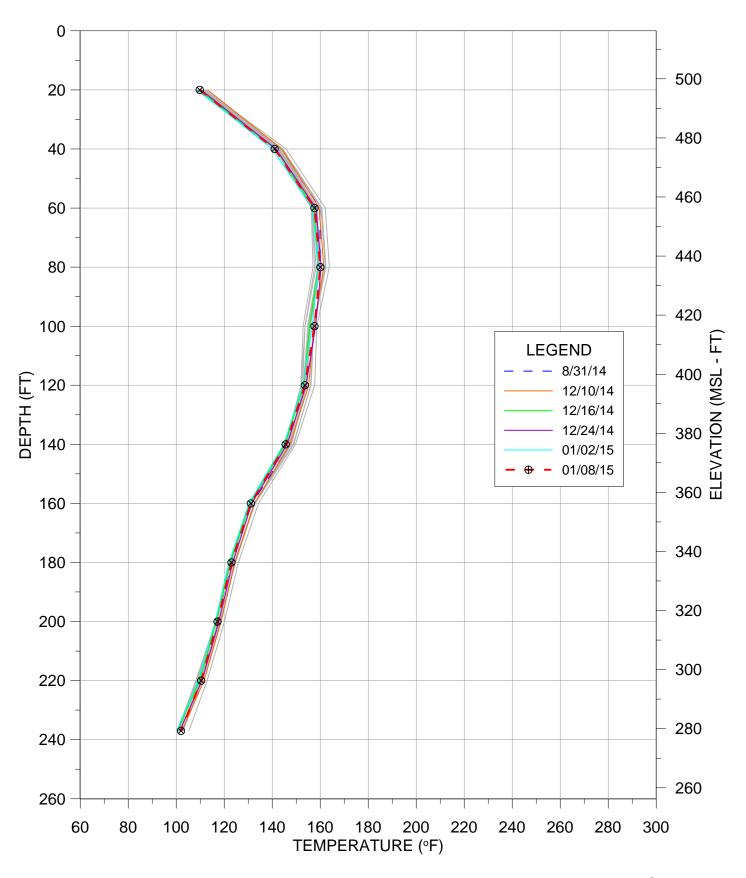


**TMP-16** 



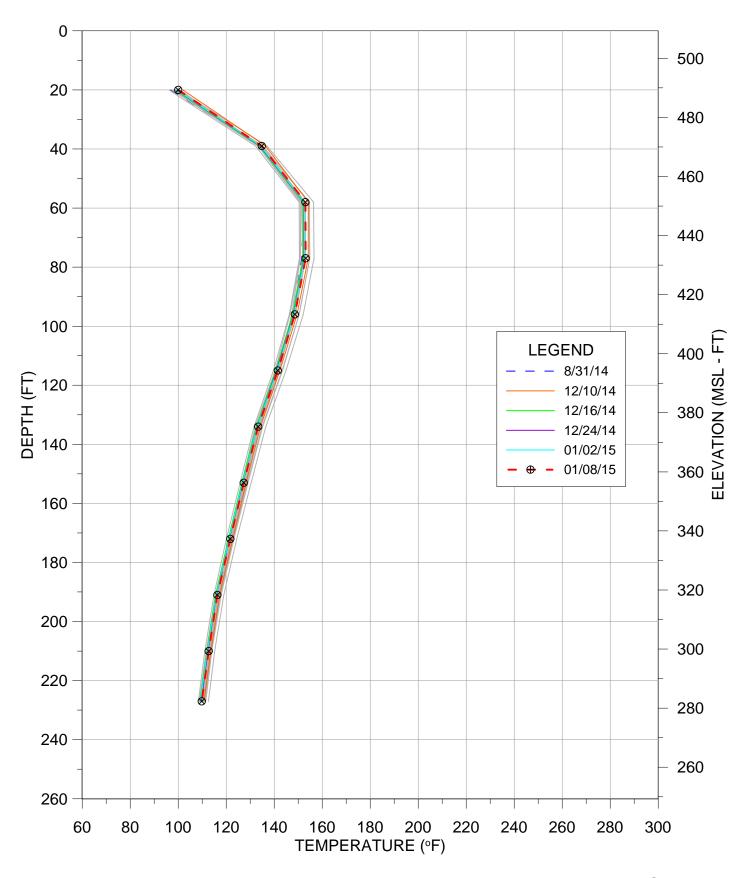
TEMPERATURE VS DEPTH BRIDGETON LANDFILL

**TMP-17** 



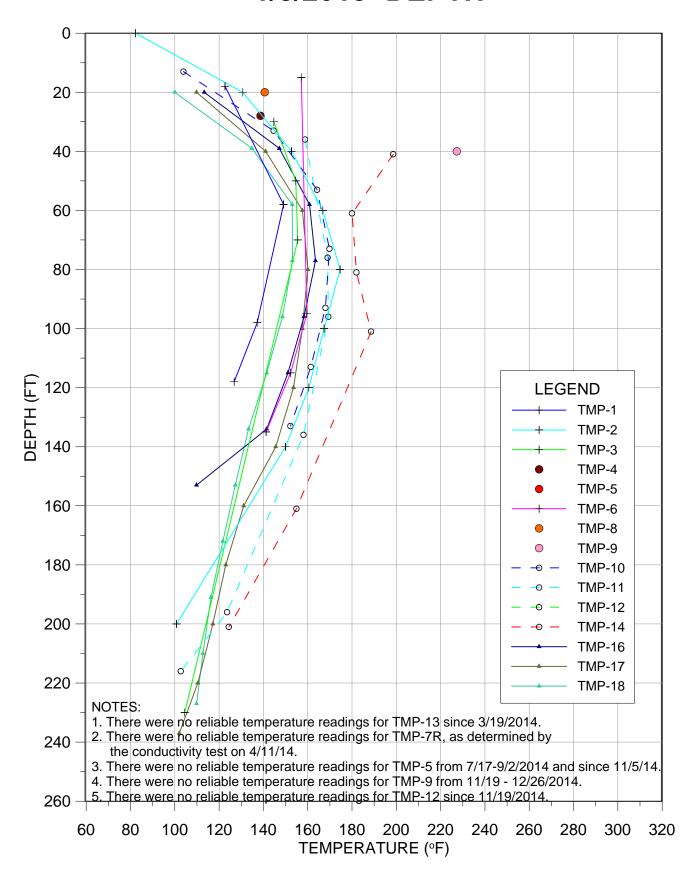
TEMPERATURE VS DEPTH BRIDGETON LANDFILL

**TMP-18** 

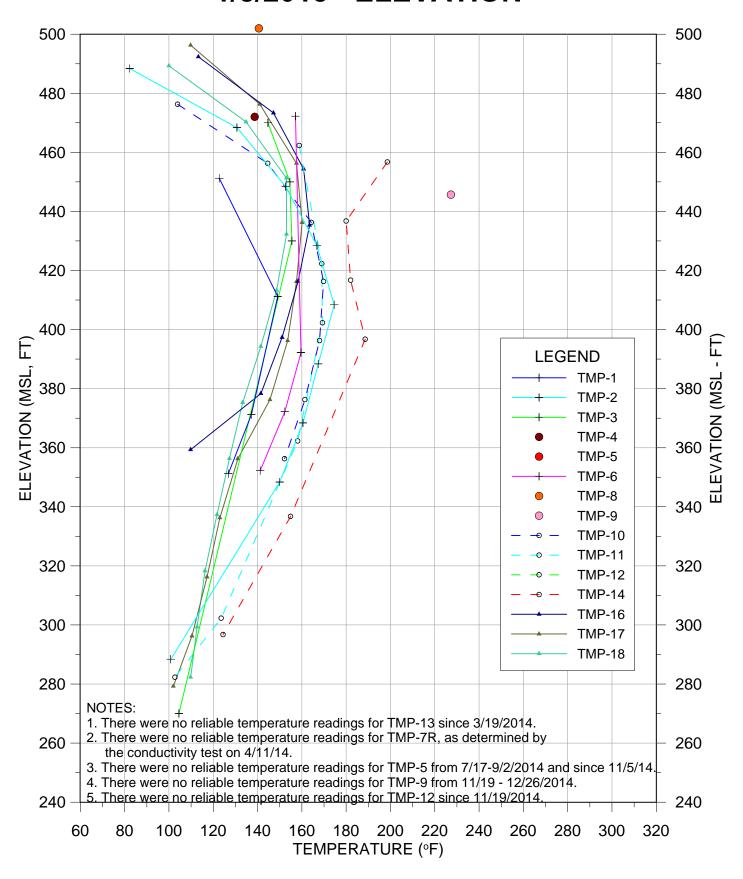


TEMPERATURE VS DEPTH BRIDGETON LANDFILL

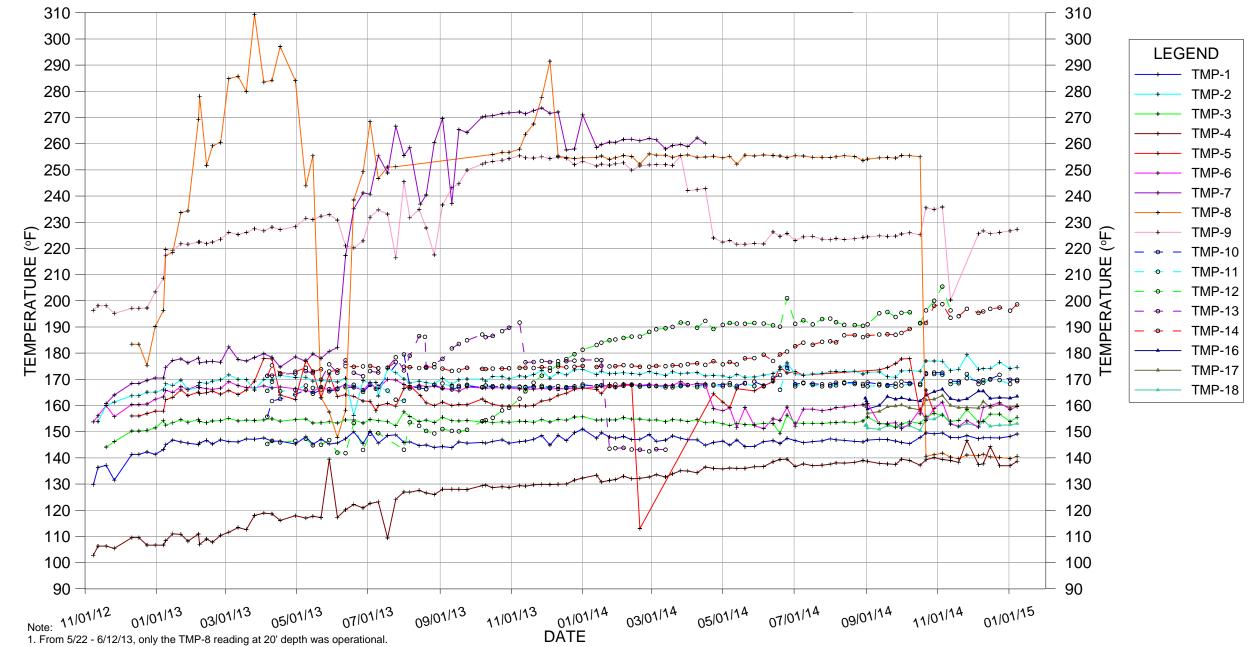
# 1/8/2015 - DEPTH



# 1/8/2015 - ELEVATION



# **MAXIMUM TEMPERATURES**



No valid readings were obtained for TMP-8 from 8/1 to 10/10/2013. Valid readings from 20' to 40' resumed on 10/16/2013.

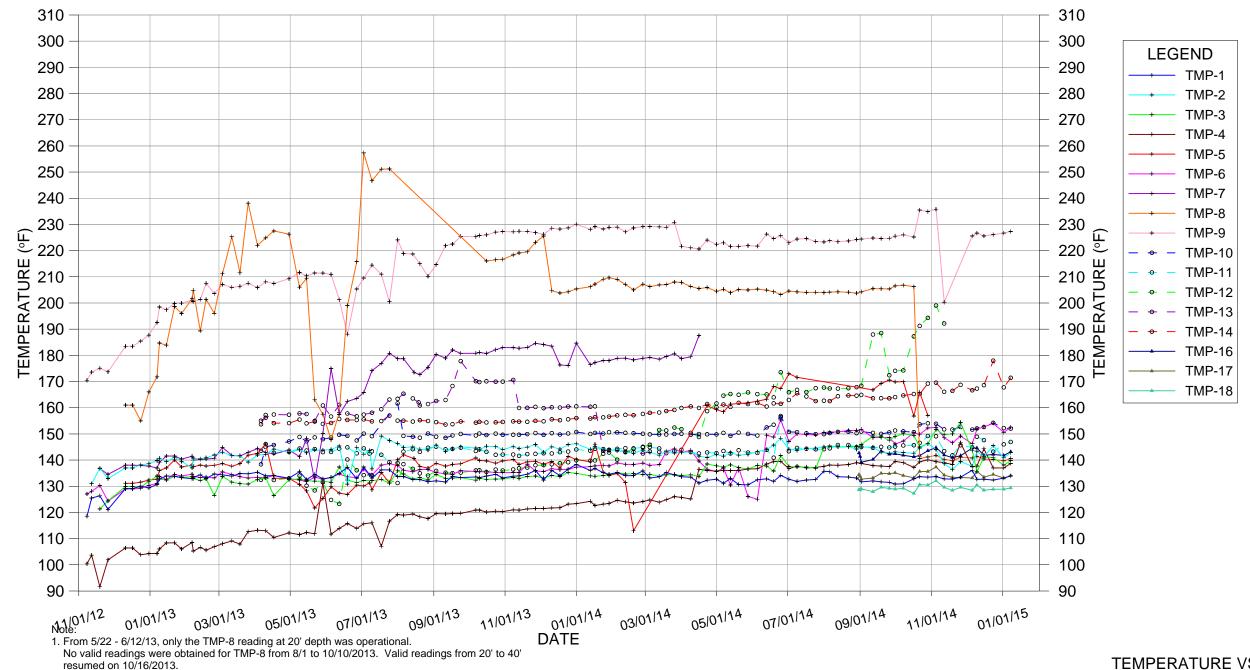
TEMPERATURE VS TIME BRIDGETON LANDFILL

<sup>2.</sup> A new OMEGA dial was installed at TMP-7R on 6/12/2013 enabling more vaild readings.

<sup>3.</sup> No valid readings were obtained for TMP-10 and TMP-12 on 7/18/2013 or 7/25/2013.

<sup>4.</sup> End terminals were replaced just prior to the 8/6/2013 readings with type T Omega connectors (part # SMPW-CC-T-M) on all TMPs except for TMP-8.

# **AVERAGE TEMPERATURES**

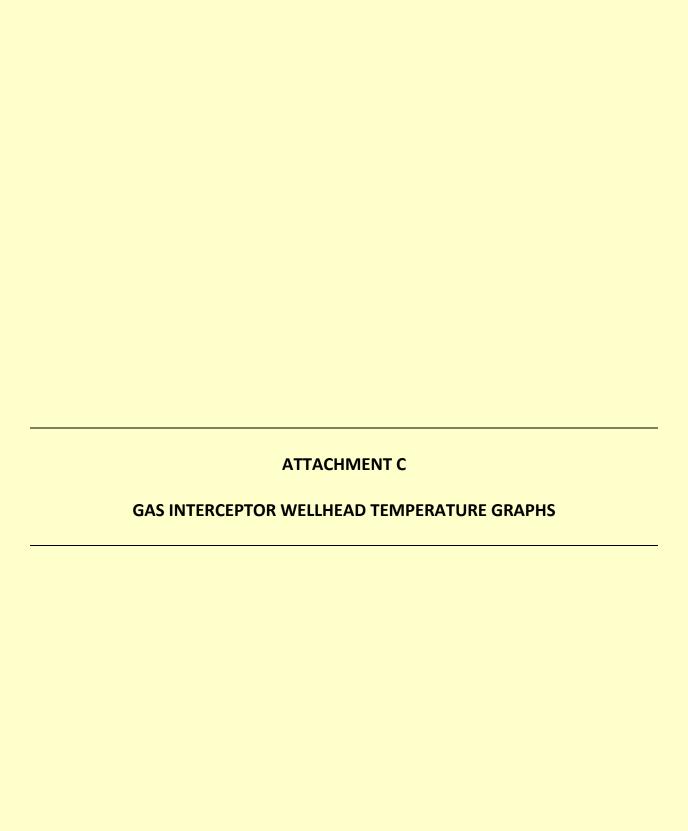


<sup>2.</sup> A new OMEGA dial was installed at TMP-7R on 6/12/2013 enabling more vaild readings.

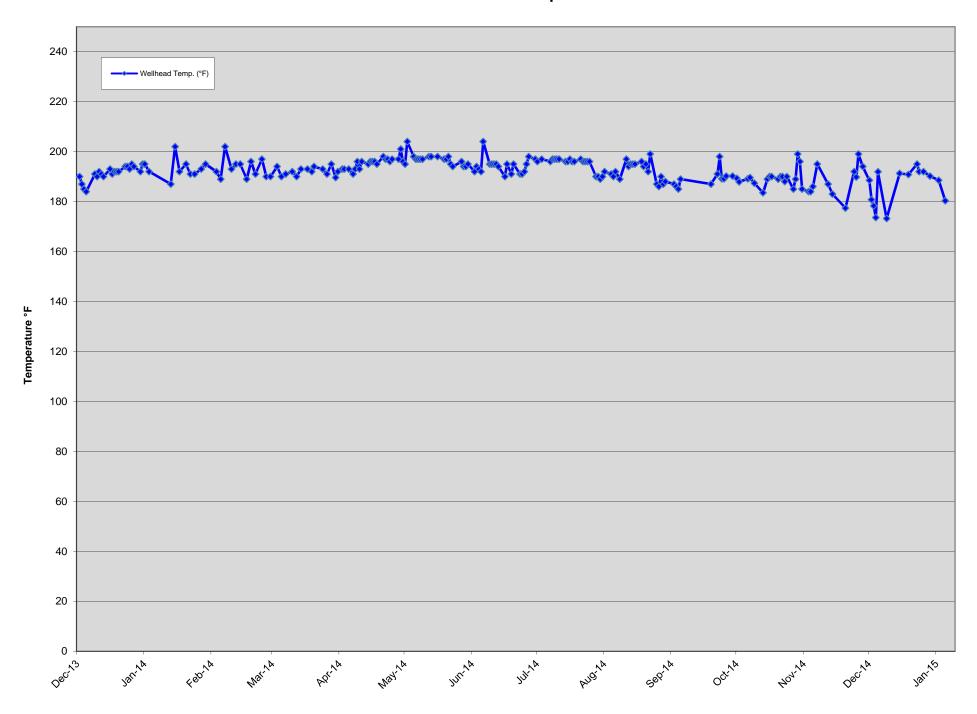
TEMPERATURE VS TIME BRIDGETON LANDFILL

<sup>3.</sup> No valid readings were obtained for TMP-10 and TMP-12 on 7/18/2013 or 7/25/2013.

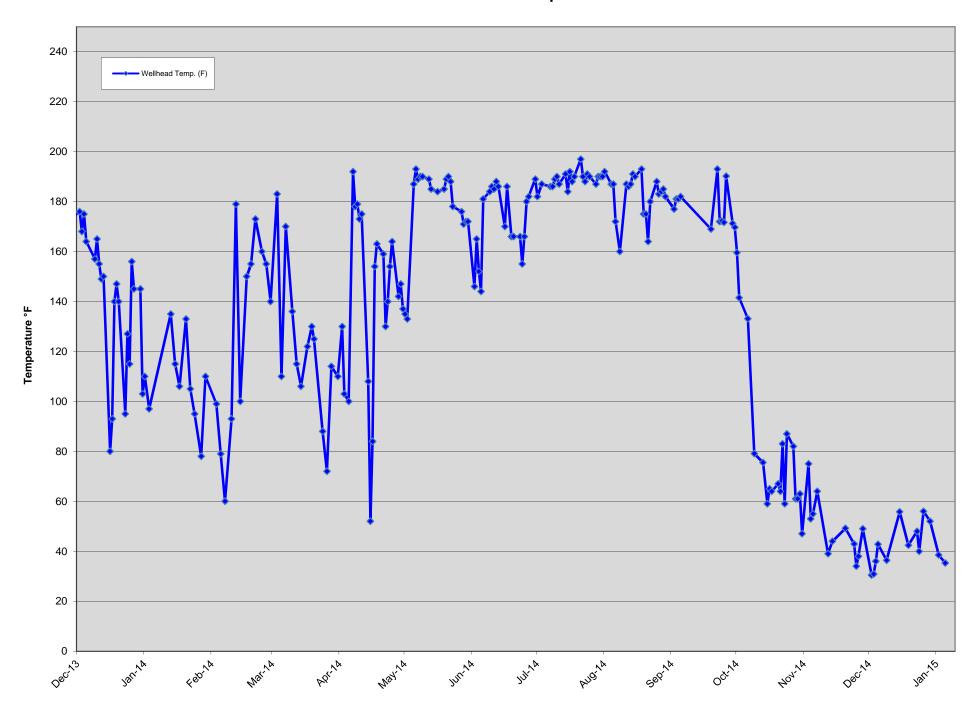
End terminals were replaced just prior to the 8/6/2013 readings with type T Omega connectors (part # SMPW-CC-T-M) on all TMPs except for TMP-8.



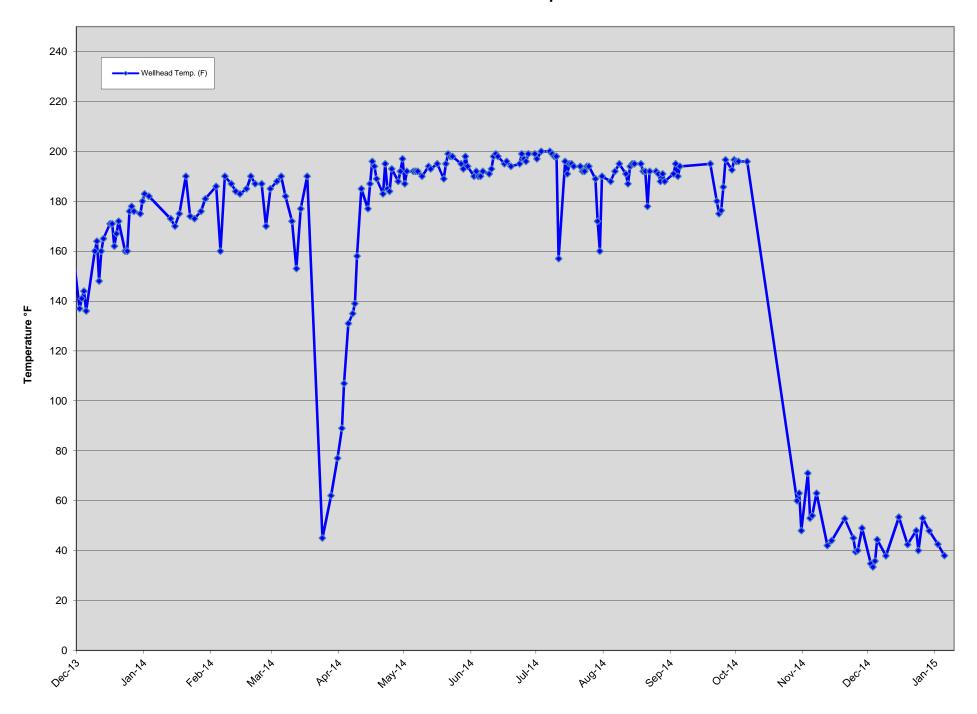
### **GIW-1 Wellhead Temperatures**



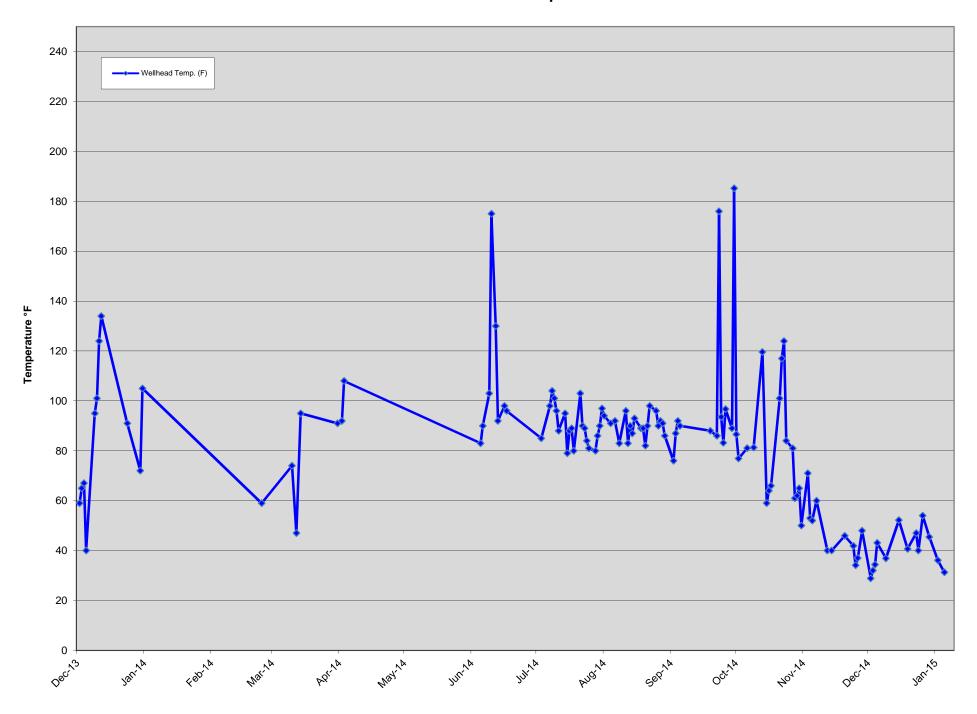
### **GIW-2 Wellhead Temperatures**



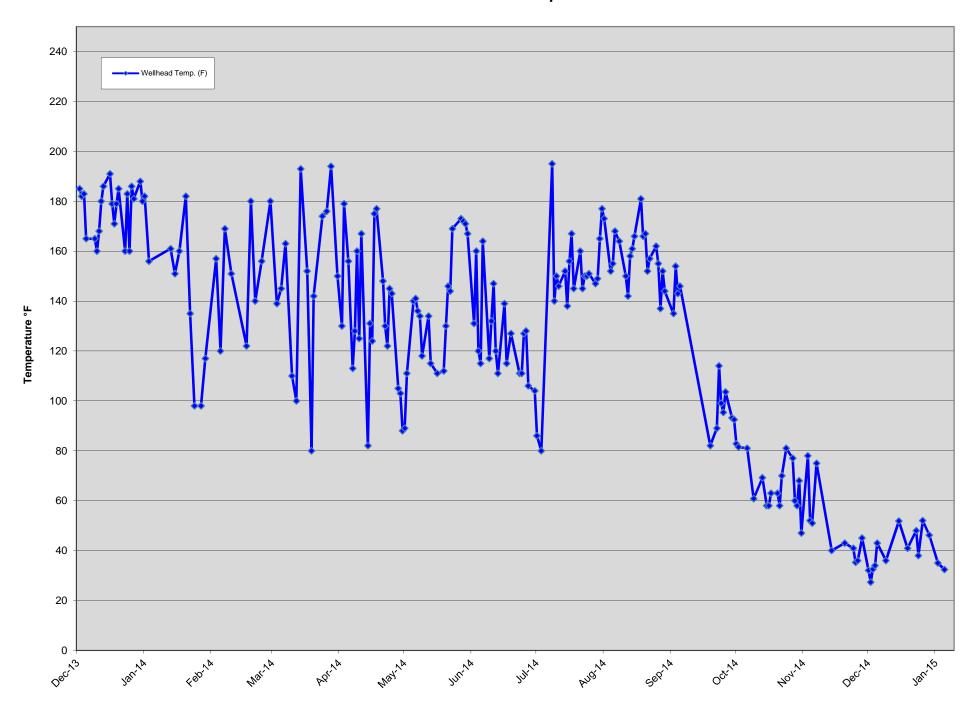
### **GIW-3 Wellhead Temperatures**



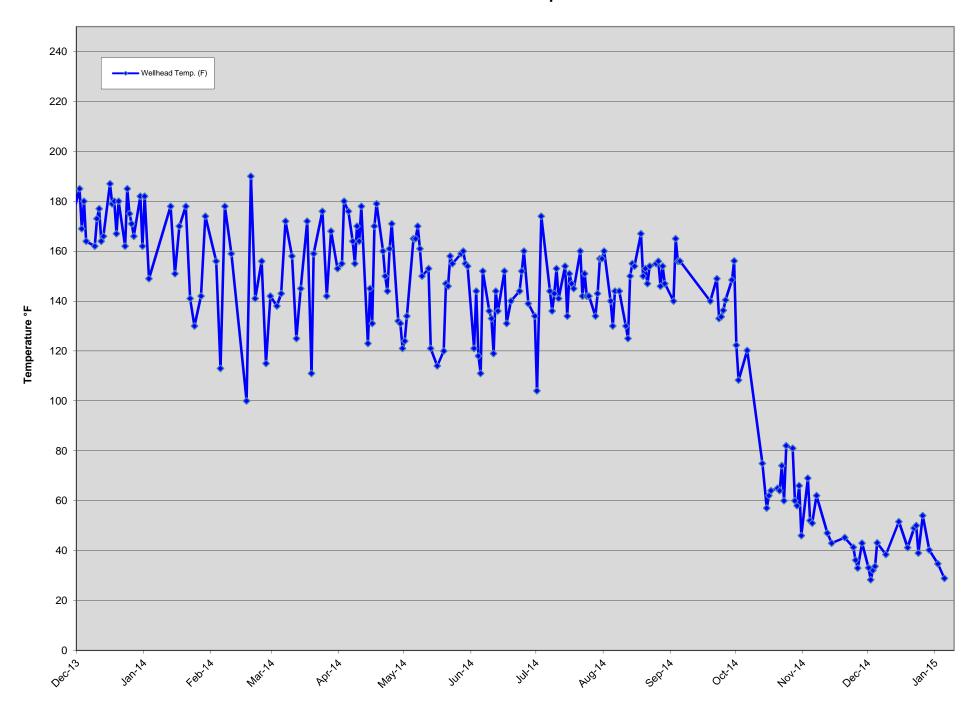
# **GIW-4 Wellhead Temperatures**



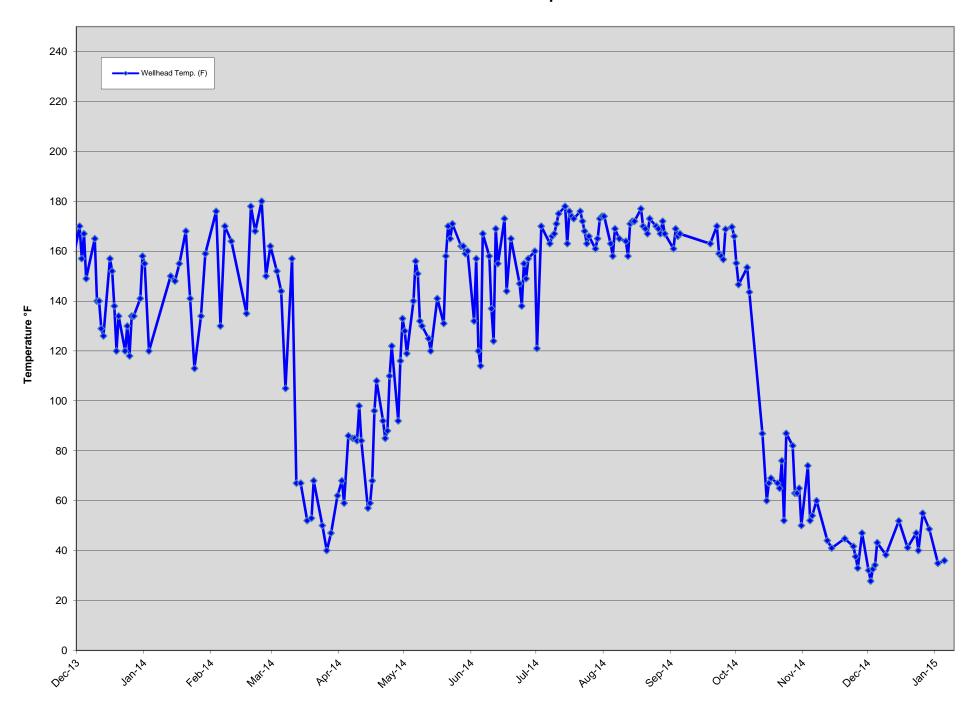
### **GIW-5 Wellhead Temperatures**



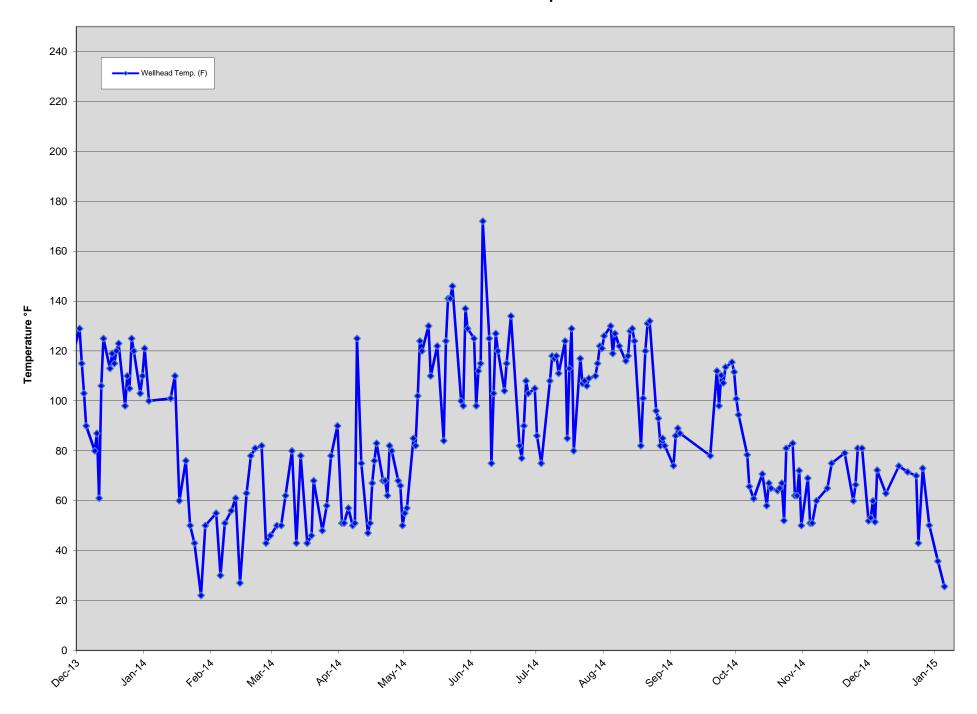
### **GIW-6 Wellhead Temperatures**



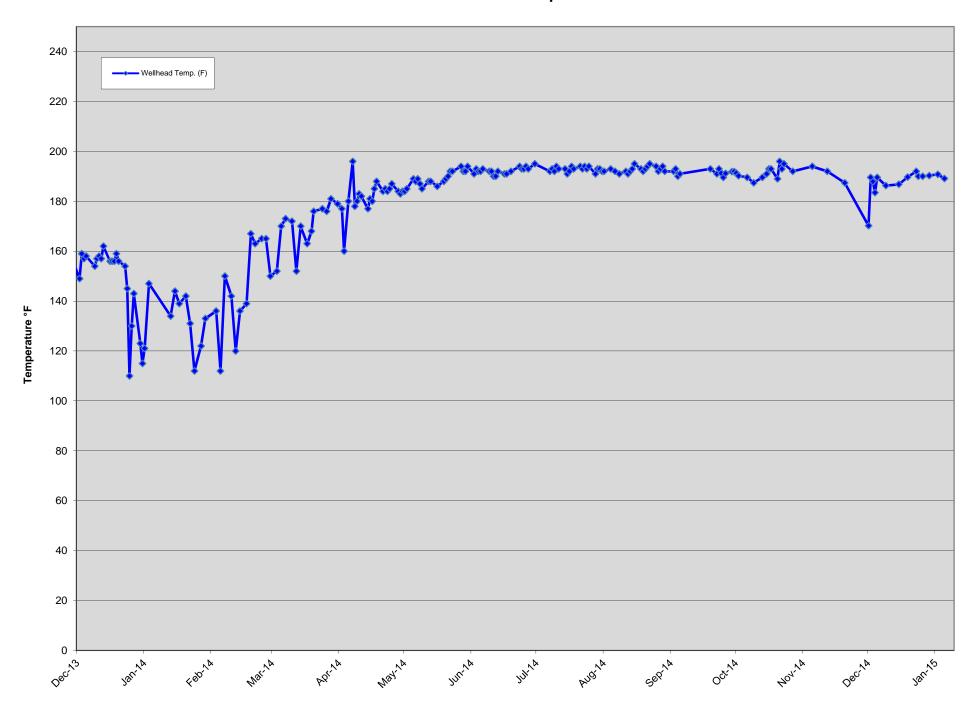
# **GIW-7 Wellhead Temperatures**



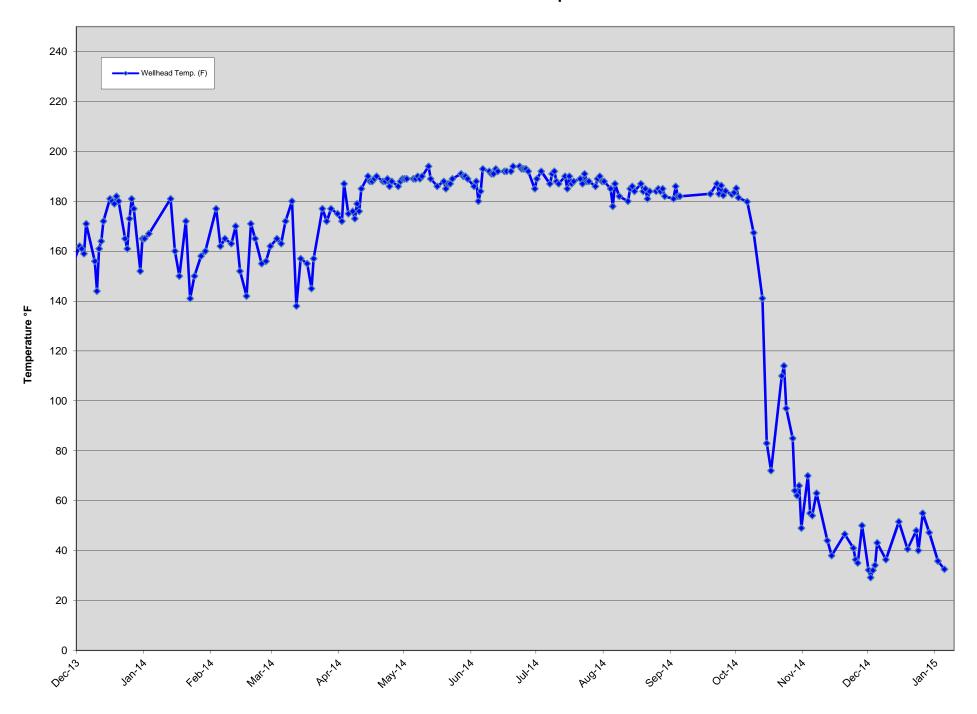
# **GIW-8 Wellhead Temperatures**



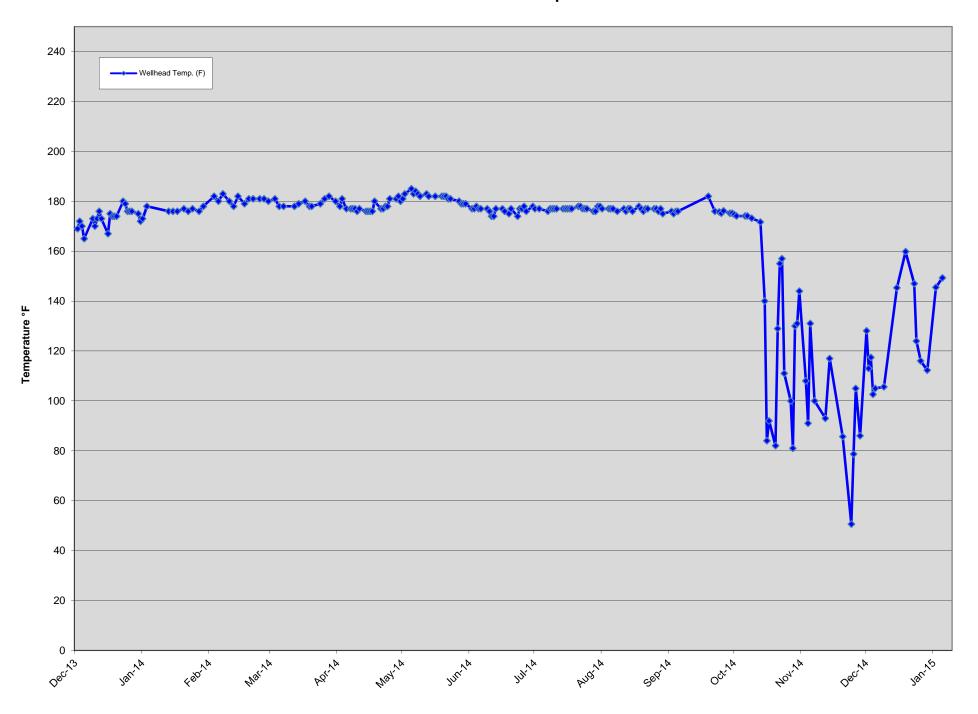
# **GIW-9 Wellhead Temperatures**



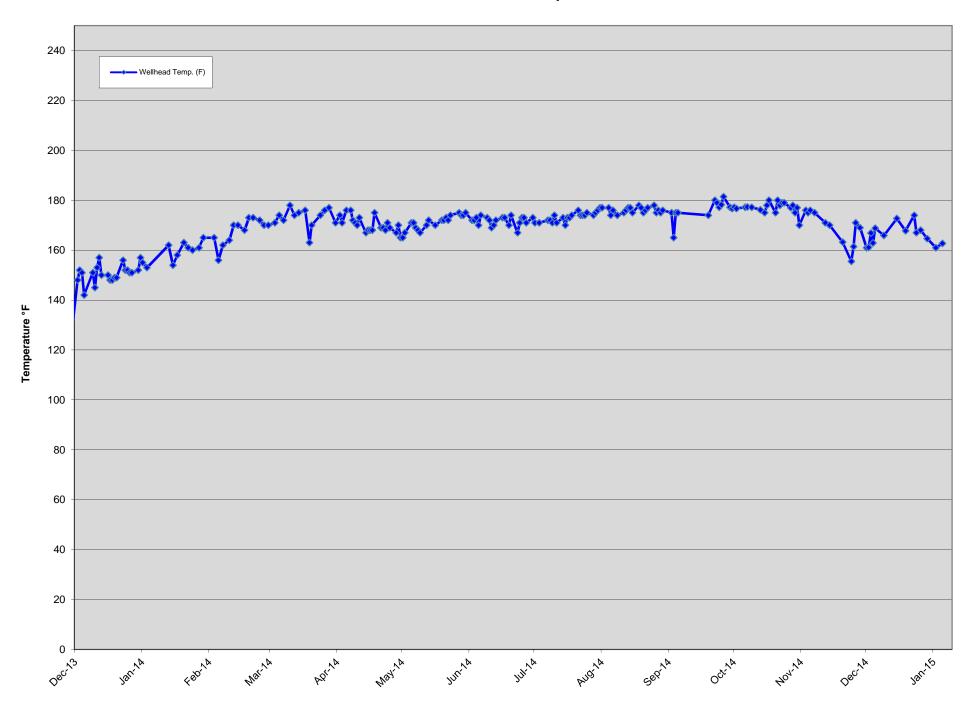
# **GIW-10 Wellhead Temperatures**



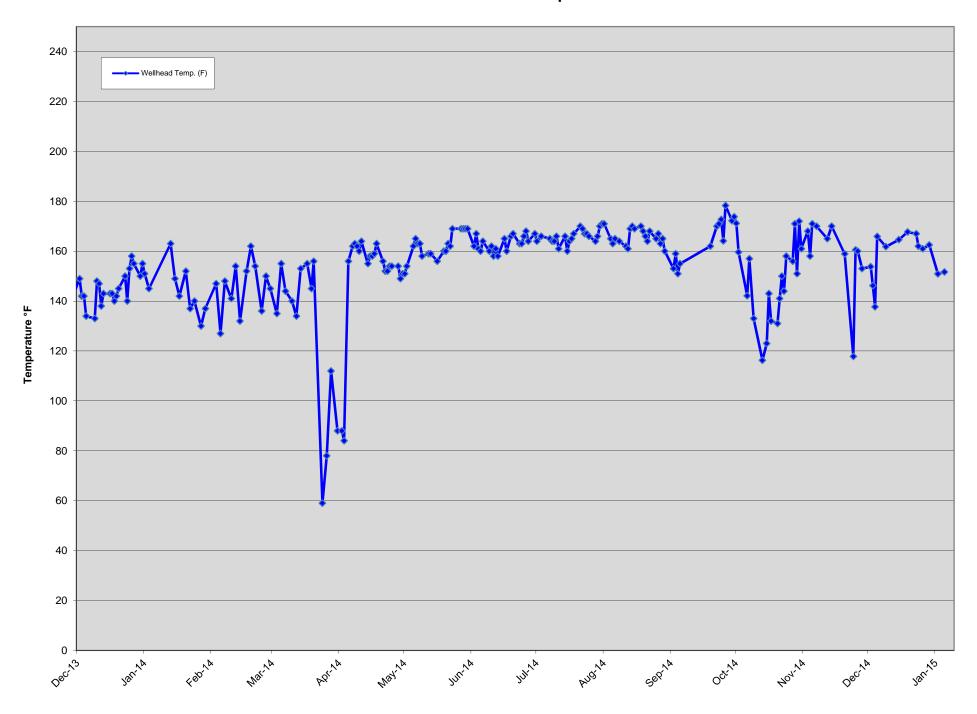
# **GIW-11 Wellhead Temperatures**

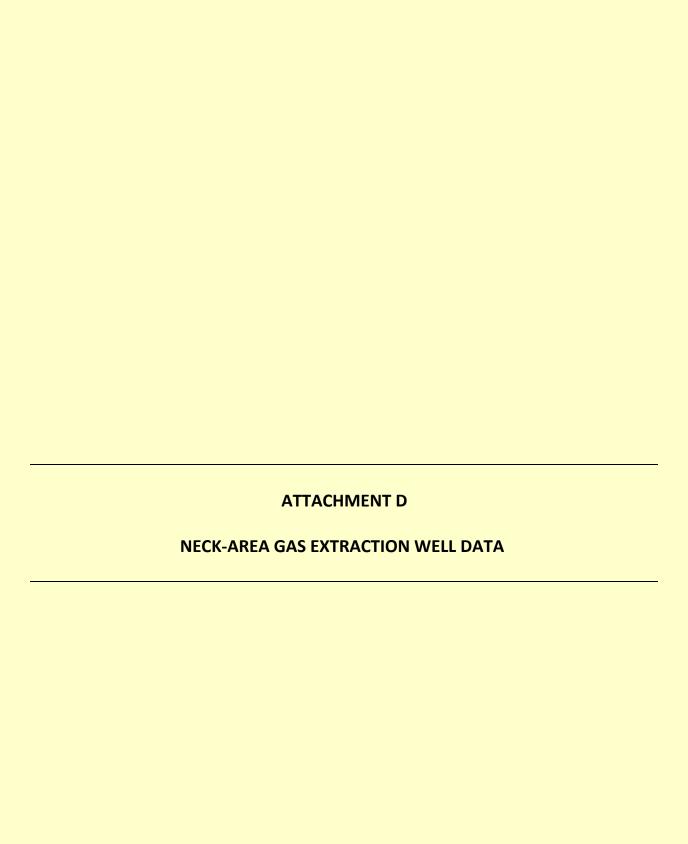


## **GIW-12 Wellhead Temperatures**

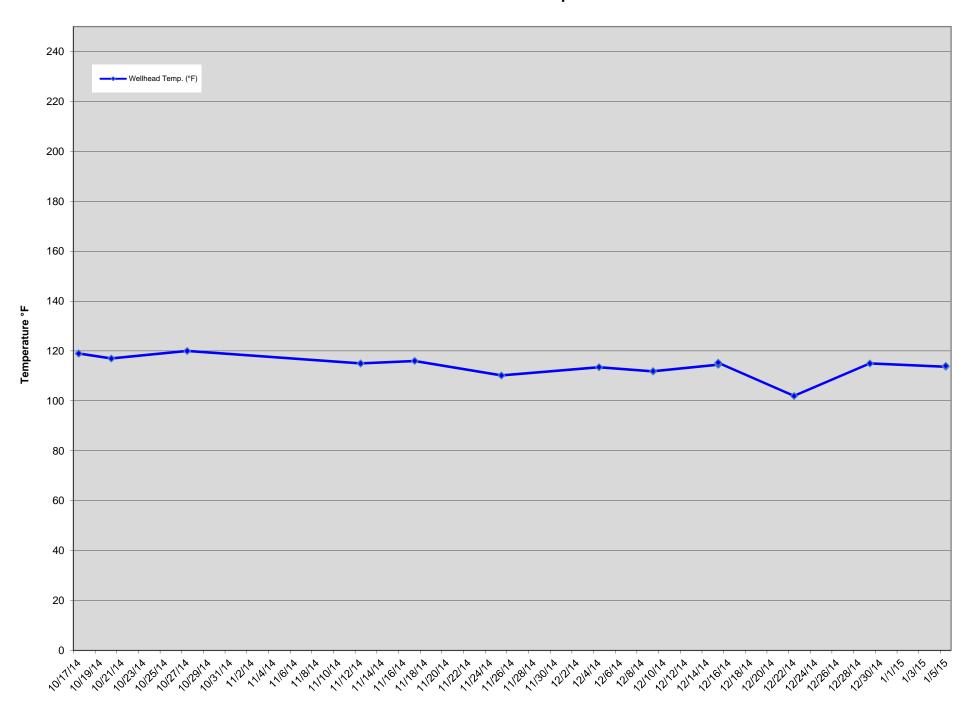


## **GIW-13 Wellhead Temperatures**

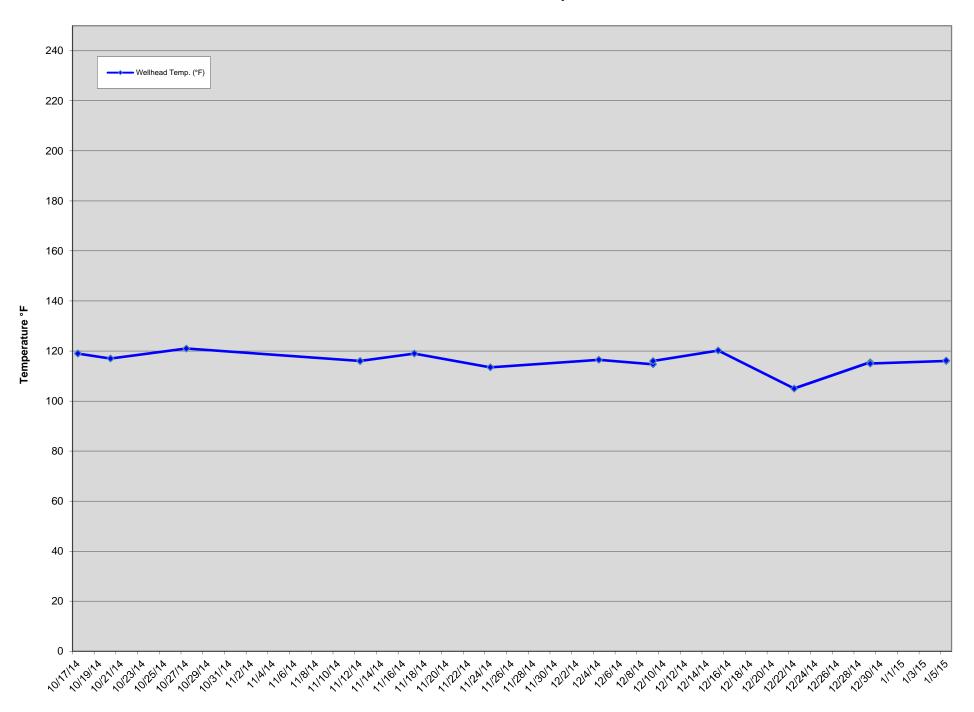




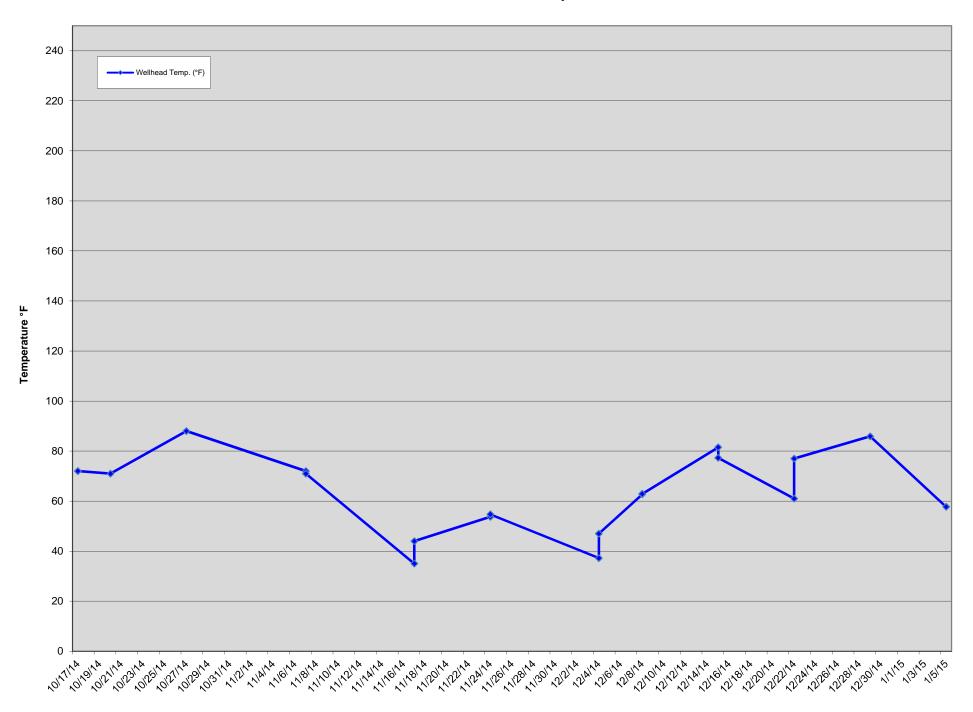
#### **GEW-08 Wellhead Temperatures**



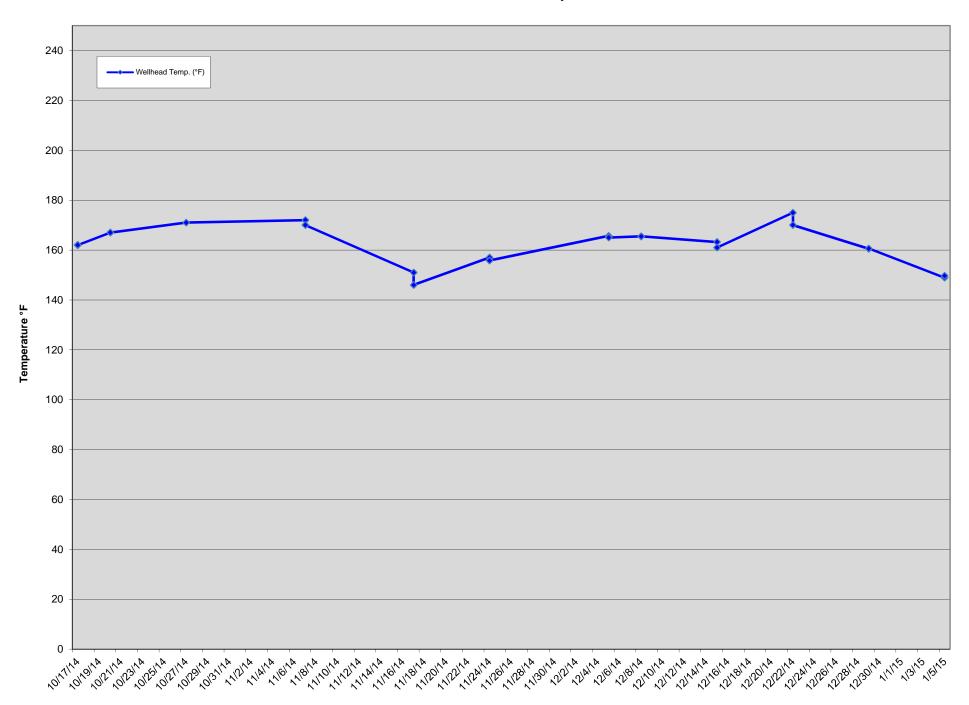
#### **GEW-09 Wellhead Temperatures**



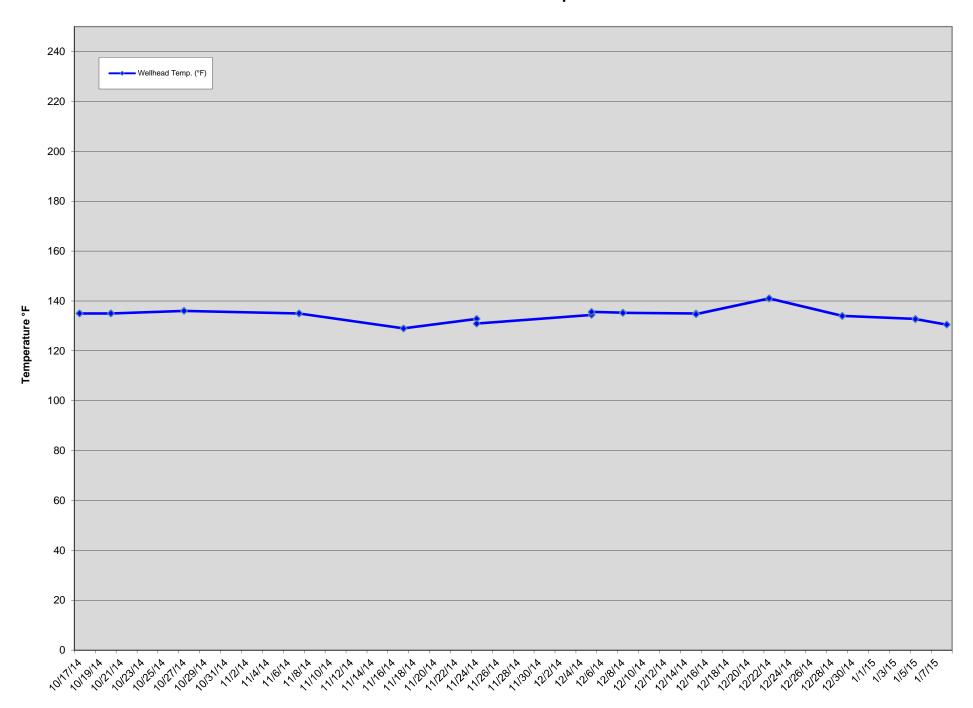
#### **GEW-10 Wellhead Temperatures**



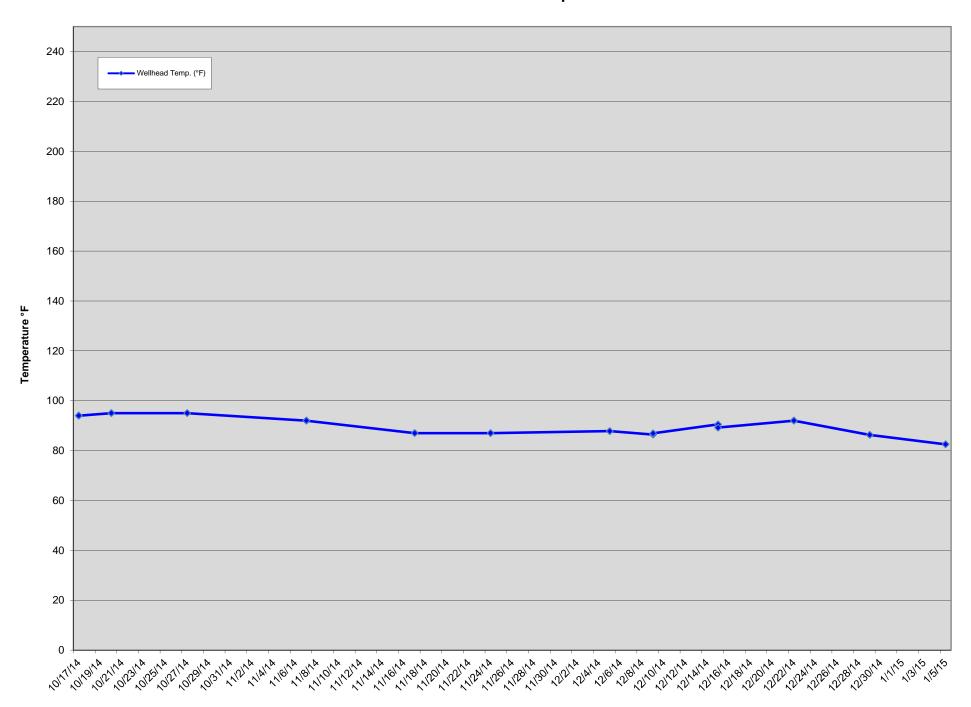
#### **GEW-38 Wellhead Temperatures**



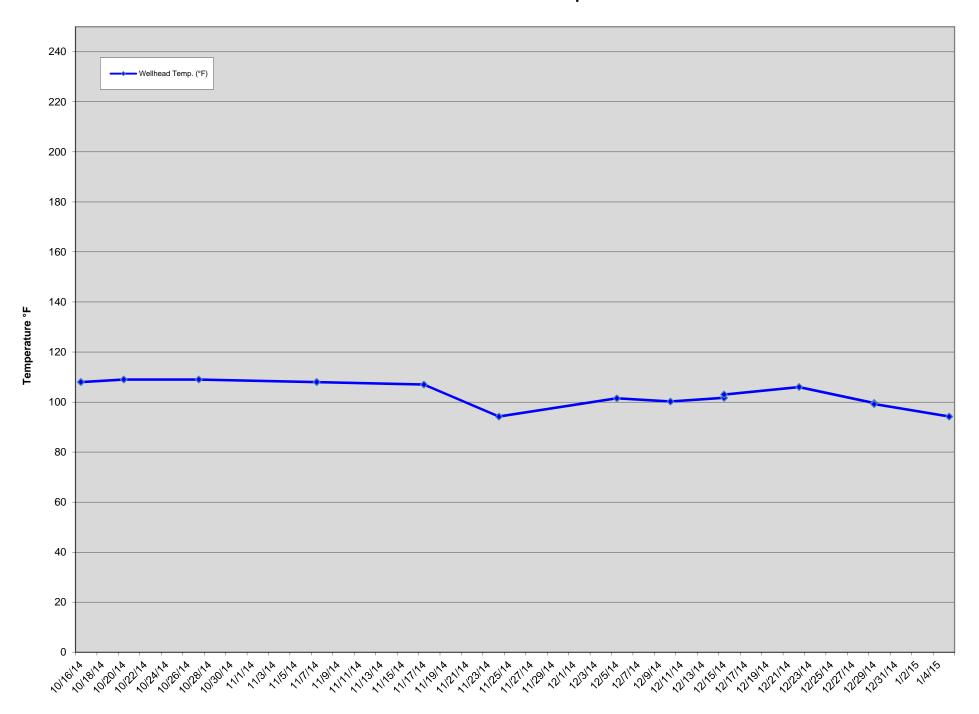
#### **GEW-39 Wellhead Temperatures**



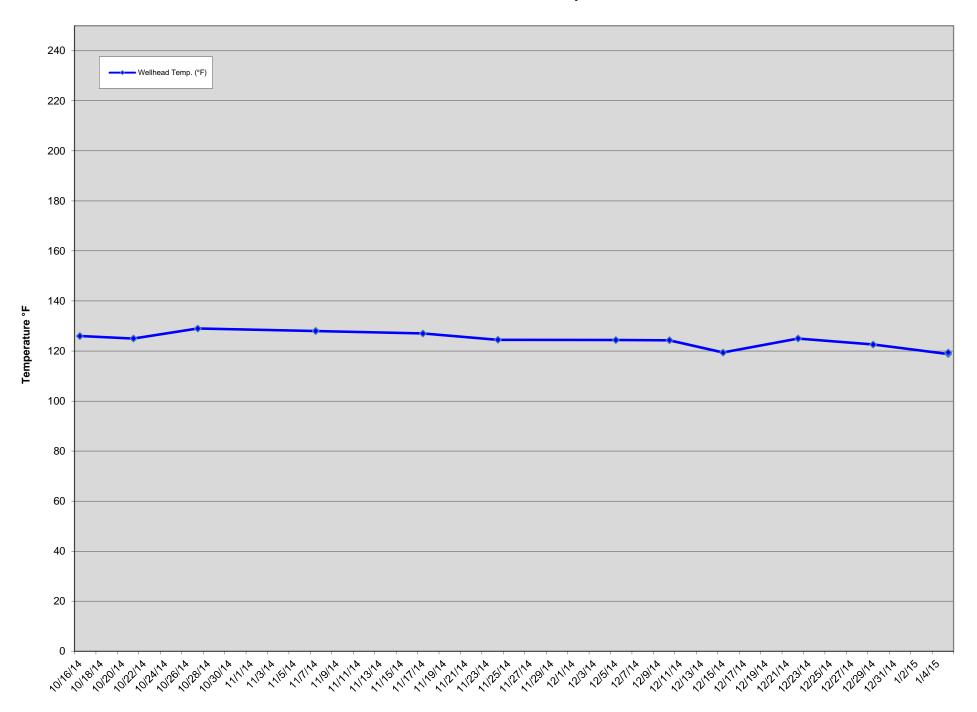
#### **GEW-40 Wellhead Temperatures**



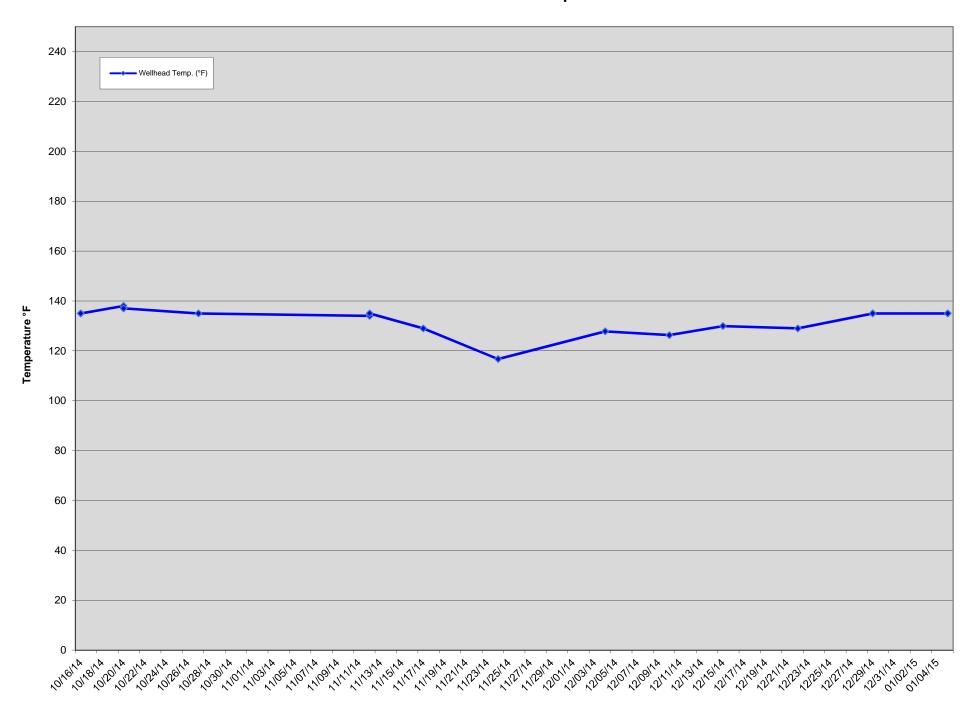
#### **GEW-41R Wellhead Temperatures**



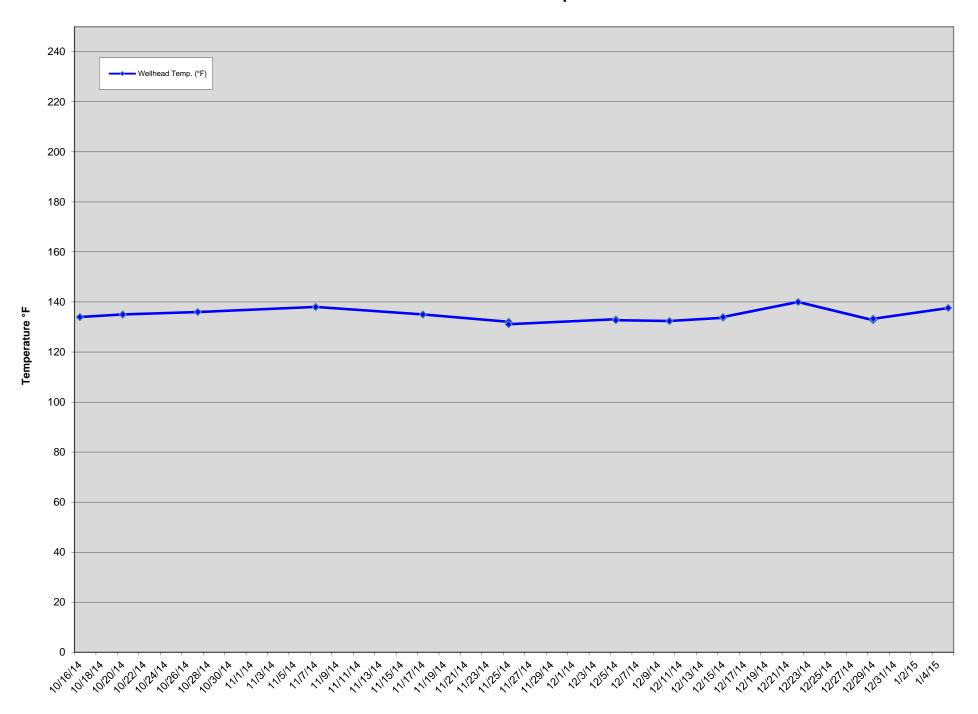
#### **GEW-43R Wellhead Temperatures**



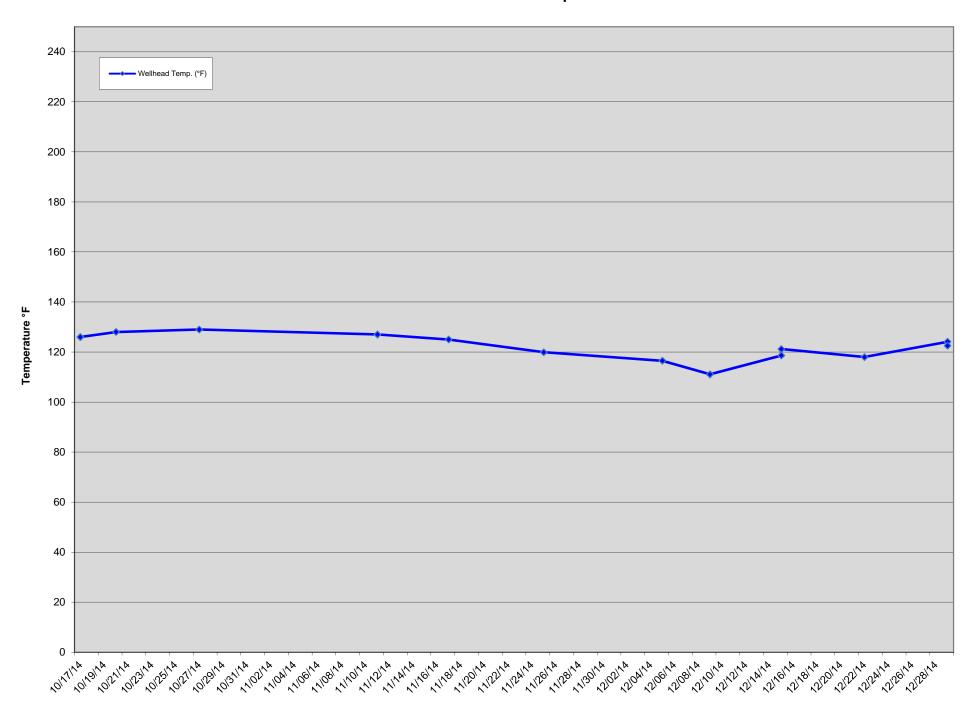
#### **GEW-53 Wellhead Temperatures**



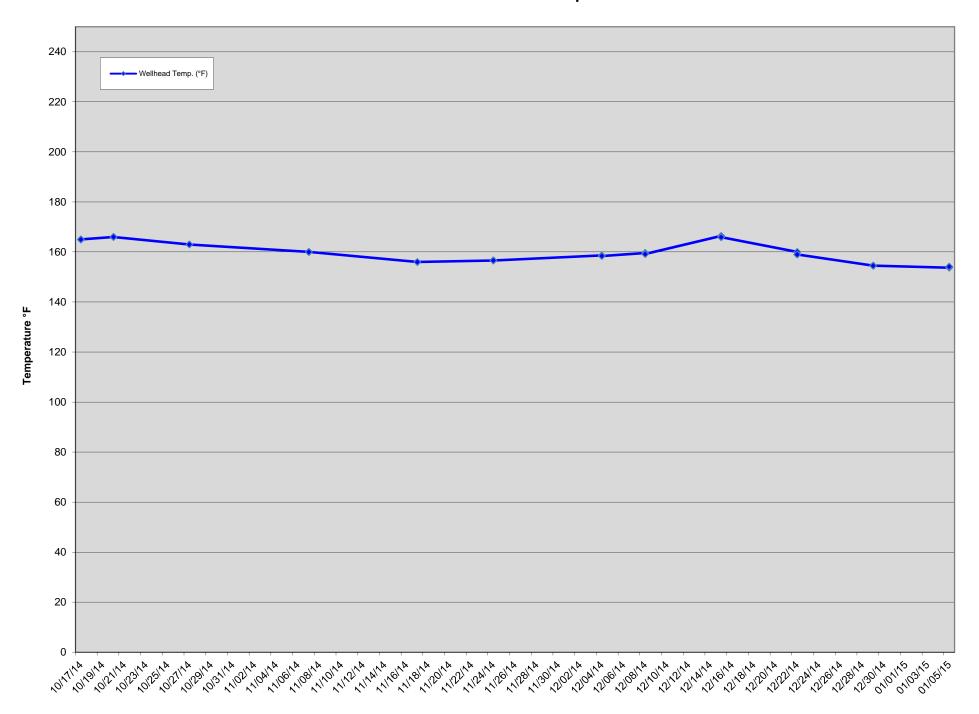
#### **GEW-54 Wellhead Temperatures**



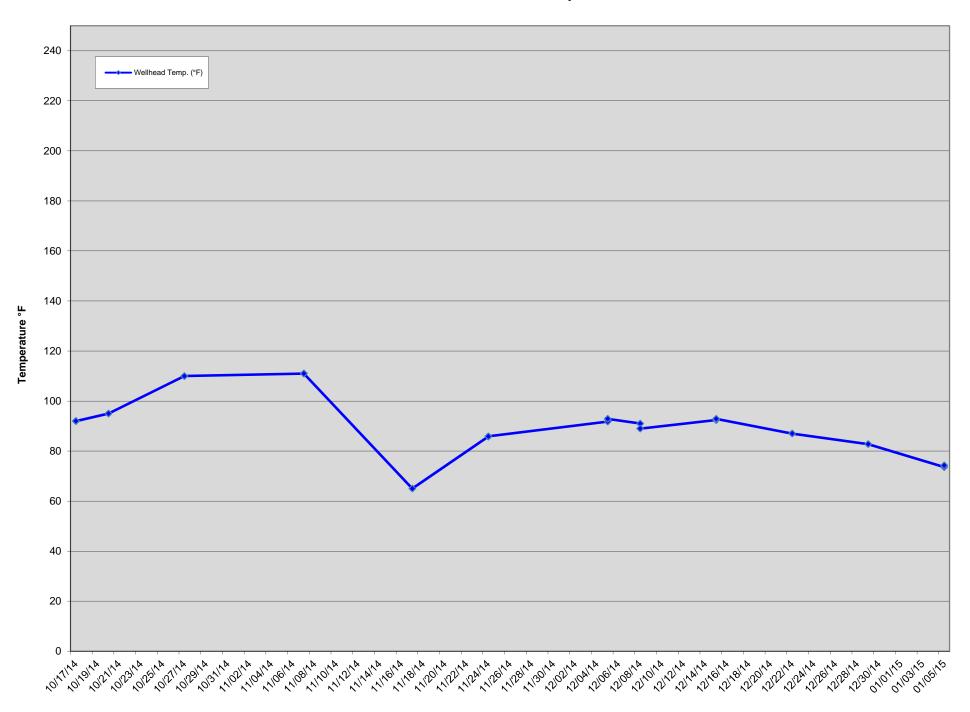
### **GEW-55 Wellhead Temperatures**



#### **GEW-56R Wellhead Temperatures**



#### **GEW-109 Wellhead Temperatures**



#### **GEW-110 Wellhead Temperatures**

