ADEC AERMET Data Summary

2007 – 2011 Prudhoe Bay Unit A Pad

Issue/Revision Date: July 17, 2017

The Alaska Department of Environmental Conservation (ADEC) is providing the following AERMOD-ready meteorological data files for general use. Applicants who use these files should state that they obtained them from ADEC's web-site. Applicants will still need to demonstrate that the data are representative of the transport conditions at their stationary source, but they will not need to provide quality assurance information or the supporting AERMET files.

Data Set Name (WBAN #): **Prudhoe Bay Unit A Pad (N/A)**

Data Period: **2007 – 2011**

General Location: **Alaska North Slope – Prudhoe Bay**

Data Collected By: **BP Exploration (Alaska), Inc. (BPXA)**

Data Processed By: **Drill Rig Workgroup (2007 – 2010) and ADEC (2011)**

AERMET Version: **16216**

AERMINUTE Version: **N/A**

Anemometer Height (m): **10** Wind Speed Threshold (m/s): **0.5**

Base Elevation (m): **14.9**

Upper Air Station Name (WBAN #): **Barrow (27502)**

Permit Record with Documentation: **AIDEA North Slope LNG Facility Modeling Protocol**

Comments: *The Drill Rig Workgroup and ADEC used the AERMET input and data files previously developed by the Alaska Industrial Development and Export Authority (AIDEA). The Drill Rig Workgroup also processed the 2006 A Pad data from a previous BPXA submittal, which ADEC is not including in this package. ADEC instead reran the 2011 data in order to provide a slightly newer data set. The 2006 – 2008 data have missing temperature and solar radiation data, so those years were processed by substituting temperature and cloud cover data collected at the Deadhorse National Weather Service station (27406) for the missing values. The 2009 – 2011 data did not require substitution due to improved data capture.*

Revision Notes:

- Oct. 17, 2012: ADEC posted a 2006 – 2010 data set that was processed by BPXA using AERMET version 11059. BPXA processed the data in support of minor permit for Gathering Center 3 (Permit AQ0184MSS02).

- Dec. 5, 2013: AIDEA updated the data set using AERMET version 12345. They used the same approach and surface parameters as previously used by BPXA, but updated the data period from 2006 – 2010 to 2007 – 2011.
- June 20, 2014: AIDEA updated the 2007 – 2011 A Pad data set using AERMET version 13350. They later reran the 2011 meteorological year with the newly released AERMET version 14134 as part of a sensitivity analysis. ADEC provided the 2007 – 2011 data generated with AERMET version 13350, as well as the 2011 data generated with AERMET version 14134.
- October 15, 2015: The Drill Rig Workgroup updated the 2006 – 2010 A Pad data set using AERMET version 15181. ADEC updated the 2011 A Pad data using the AERMET input file that AIDEA used when they processed the 2011 data with AERMET version 14134. ADEC is only providing the 2007 – 2011 data in this package.
- July 17, 2017: The Drill Rig Workgroup updated the 2006 – 2010 A Pad data set using AERMET version 16216. ADEC updated the 2011 A Pad data using the AERMET input file from the October 2015 revision discussed above. Neither party used EPA's newly developed algorithm for adjusting the surface friction velocity (u*) since ADEC has not yet adopted EPA's 2016 revision to the *Guideline on Air Quality Models* – which would allow that option to be used. ADEC is continuing to only provide the 2007 – 2011 data in this package.