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Mr. Tom Stokes, Director  
Division of Oil & Gas  
Alaska Department of Natural Resources  
550 West 7<sup>th</sup> Avenue, Suite 1100  
Anchorage, AK 99501-3563

**RE: Proposed Prudhoe Bay Unit Western Satellites 2021 Plan of Development**

Dear Mr. Stokes:

Hilcorp North Slope, LLC (“Hilcorp North Slope”), as Operator of the Prudhoe Bay Unit (“PBU”) Western Satellites Participating Areas (“Western Satellite PAs”), hereby submits the proposed 2021 Plan of Development (“POD”) for the Western Satellite PAs pursuant to 11 AAC 83.343(c) on behalf of itself and the other working interest owners, ConocoPhillips Alaska, Inc., ExxonMobil Alaska Production, Inc., and Chevron U.S.A., Inc. The Western Satellite PAs consist of the Aurora, Borealis, Midnight Sun, Orion, and Polaris Participating Areas (“PA”). This proposed plan will be effective May 1, 2021 through April 30, 2022 (“2021 POD Period”).

On September 30, 2019, BP Exploration (Alaska) Inc. (“BPXA”) submitted the proposed 2020 POD to the Division of Oil and Gas (“Division”). On November 20, 2019, the Division approved the 2020 POD for the period January 1, 2020 through December 31, 2020.

On August 26, 2019, the Standard Oil Company (“Standard Oil”) and Hilcorp Alaska, LLC (“Hilcorp Alaska”) entered into a Purchase and Sale Agreement for the sale by Standard Oil to Hilcorp Alaska of all of the issued and outstanding shares of stock of BPXA. As a result of this stock sale, which closed on June 30, 2020, Hilcorp Alaska indirectly, through its ownership of BPXA, owns and controls all of BPXA’s upstream oil and gas interests in Alaska. On July 1, 2020, the entity BPXA underwent a name change to Hilcorp North Slope, LLC.

On August 5, 2020, Hilcorp North Slope submitted a request to the Division to extend the 2020 POD by 120 days to allow for time to become familiar with the Western Satellite PAs prior to submitting the 2021 POD, which was due on October 2, 2020. The Division approved the request on August 20, 2020, extending the 2020 POD period to cover January 1, 2020 through April 30, 2021, and pushing the due date of the 2021 POD to January 29, 2021.

## **I. FIELD OVERVIEW**

### Aurora PA

Aurora Reservoir development began in July 2000 with production startup in November 2000 and water injection in December 2001. Beginning in December 2003, Prudhoe Bay miscible gas for Water-Alternating-Gas injection (“WAG”) has been used for tertiary recovery. Production is commingled with Prudhoe Bay Initial PA (“IPA”) and Polaris PA production at S-Pad and processed at the Gathering Center #2 (“GC-2”) Facility. Aurora production adjustments are applied based on the GC-2 allocation factor with a minimum of one well test per month.

### Borealis PA

Borealis Reservoir development began in July 2001 with production startup in November 2001 and water injection in June 2002. Starting as a pilot project in June 2004, Prudhoe Bay miscible injectant (“MI”) for WAG has been used for tertiary recovery. Production is commingled with IPA at Z-Pad and Orion PA production on the L and V Pads and processed at the GC-2 Facility. Production adjustments are applied based on the GC-2 allocation factor with a minimum of one well test per month.

### Midnight Sun PA

Midnight Sun Reservoir development began in 1997 with production startup in October 1998. Water injection began in October 2000 and MI in 2016. Production is processed at the Gathering Center #1 (“GC-1”) Facility. Production adjustments are applied based on the GC-1 allocation factor with a minimum of one well test per month.

### Orion PA

Orion Reservoir development began in December 2001 with production startup in April 2002 and water injection in December 2003. Beginning in October 2006, Prudhoe Bay MI for WAG has been used for tertiary recovery. Production is processed at the GC-2 Facility. Production adjustments are applied based on the GC-2 allocation factor with a minimum of one well test per month.

### Polaris PA

Polaris Reservoir development began in November 1997 with production startup in November 1999 and water injection in May 2003. Prudhoe Bay MI for WAG was used shortly in 2006 and then began again in November 2009 for tertiary recovery. Production is commingled with IPA and Aurora PA production at S-Pad and IPA production on the W-Pad and processed at the GC-2 Facility. Production adjustments are applied based on the GC-2 allocation factor with a minimum of one well test per month.

## II. 2020 PLAN OF DEVELOPMENT REVIEW

The following annual report describes the operations conducted under the 2020 POD as required by 11 AAC 83.343(d).

### A. 2020 POD Production Summary

During calendar year 2019, the Western Satellites PAs produced approximately 18.7 billion cubic feet (“BCF”) of gas and 6,951 thousand barrels (“Mbbbl”) of oil. During calendar year 2020, the average daily production rate was 21,967 barrels of oil per day (“BOPD”). Table 1 provides a summary of the production data for each of the Western Satellite PAs.

*Table 1. 2020 POD Period Production Summary (Calendar Year 2020)*

PA	Gas Production (BCF)	Oil Production (Mbbbl)	NGLs	Average Daily Oil Production (BOPD)	Average Daily Water Production (BWPD)	Average Daily Water Injection (BWPD)	Average Daily MI Injection (MMSCFD)
Aurora	4.90	1,945	NA	5,315	20,303	20,982	9.7
Borealis	5.71	2,034	NA	5,558	25,381	29,912	24.1
Midnight Sun	2.43	356	NA	973	5,972	2,014	10.7
Orion	2.88	1,438	NA	3,928	9,282	11,979	11.5
Polaris	3.25	2,267	NA	6,193	6,252	8,638	8.0
<i>Total</i>	<i>19.17</i>	<i>8,040</i>	<i>NA</i>	<i>21,967</i>	<i>67,189</i>	<i>73,525</i>	<i>64.1</i>

### B. 2020 POD Drilling Program

During the 2020 POD period to date, the following wells were drilled and completed.

- Borealis:
  - L-119Ai
- Polaris:
  - S-201Ai

Drilling activity was halted in April due to the COVID-19 pandemic and is not expected to resume during the 2020 POD period.

Aurora well S-129A was drilled in December 2019, frac’d in December 2020, and began producing in December 2020.

### C. 2020 POD Workover Program

No workovers of existing wells have been completed during the 2020 POD period. Hilcorp North Slope plans to start a workover campaign in Prudhoe in 2021 Q2.

Hilcorp North Slope plans to use a temporary rig to execute workovers on S-118 and V-137 in 2021 Q1.

### D. 2020 POD Major Facility Projects

During the 2020 POD Period, no facility projects were completed.

### III. 2021 PLAN OF DEVELOPMENT AND OPERATIONS

For the period of May 1, 2021 through April 30, 2022, Hilcorp North Slope anticipates completing the following drilling, workover and facility projects.

#### A. Proposed Drilling Program

Due to the challenging economic conditions related to the COVID-19 global pandemic, the PBU working interest owners did not approve a drilling program for 2021. The resumption of drilling activity in 2022 will depend on market conditions and approval from working interest owners. Hilcorp North Slope will continue to evaluate drilling projects for future years.

#### B. Proposed Wellwork and Workover Program

During the 2021 POD period, Hilcorp North Slope anticipates completing up to 10 workovers or recompletes. Candidates to be evaluated include, but are not limited to:

##### Borealis PA

- 2 Z-Pad recompletes from the Ivishak to Kuparuk formation

##### Midnight Sun PA

- 1 Rig Workover (“RWO”) for profile modification

##### Orion PA

- 2 RWOs to repair mechanically failed wells
- 2 RWOs to add additional injection

##### Polaris PA

- 3 RWOs to add additional injection

#### C. Major Facility Projects

During the 2021 POD period, Hilcorp North Slope anticipates reinstating the GC-2 B slug catcher sand jetting system to improve solids and water handling capabilities. Additionally, Hilcorp North Slope plans to undertake early studies aimed at defining opportunities in the western area gathering infrastructure.

#### D. Long-Range Activities

Hilcorp North Slope continues to evaluate future drilling opportunities and plans to continue to evaluate potential undeveloped resources. During the 2021 POD period, Hilcorp North Slope plans to evaluate new pad development options, polymer injection, L pad expansion, and partial pad separation.

Hilcorp North Slope, as Unit Operator, will propose modifications to this POD to the appropriate governmental agencies should conditions warrant. No modifications will be made without first obtaining necessary governmental approvals.



The Division's approval of the proposed PBU Western Satellites 2021 POD is respectfully requested. Hilcorp North Slope believes the proposed 2021 POD satisfies the requirements of 11 AAC 83.343(c) and complies with the provisions of 11 AAC 83.303. Should you have any questions, please contact me at (907) 777-8489 or [ashowalter@hilcorp.com](mailto:ashowalter@hilcorp.com).

Sincerely,

Alicia Showalter  
Land Representative  
Hilcorp North Slope, LLC

cc: Justin Black, Deputy Director, Alaska Division of Oil & Gas  
Aaron O'Quinn, Petroleum Land Manager, Alaska Division of Oil & Gas  
Dave Roby, Sr. Reservoir Engineer, Alaska Oil and Gas Conservation Commission  
ConocoPhillips Alaska, Inc.  
ExxonMobil Alaska Production, Inc.  
Chevron U.S.A., Inc.