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May 1, 2018

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Jason Brune, Sr. Director Land and Resources Cook Inlet Region, Inc. 725 E. Fireweed Lane Anchorage, AK 99509-3330

## 15<sup>th</sup> PLAN OF DEVELOPMENT FOR THE DEEP CREEK UNIT

Hilcorp Alaska, LLC ("Hilcorp"), as Operator of the Deep Creek Unit ("DCU"), hereby submits the proposed 15<sup>th</sup> Plan of Development for the DCU ("2018 POD") to the State of Alaska, Department of Natural Resources ("DNR"), pursuant 11 AAC 83.343.

On April 17<sup>th</sup>, 2017, DNR approved the 14<sup>th</sup> Plan of Development and Operations for the DCU ("2017 POD"), submitted by Hilcorp. The 2017 POD was approved for the period of June 1, 2017 through May 31, 2018.

#### A. PERIOD

This plan will be effective from June 1, 2018 through July 31, 2019. The 2019 POD will be submitted on or before May 1, 2019.

#### B. 2017 ANNUAL REPORT

The following is Hilcorp's annual report of the 2017 POD period, pursuant 11 AAC 83.343 (d):

- 1) **2017 POD Approved Development Plans**: The 2017 POD consisted of the following development plans:
  - **a) Maintain/Enhance Production:** Hilcorp anticipates that current DCU production will be maintained and improved throughout the 2017 POD period, primarily through implementation of efficiencies and optimization projects.

### b) Drilling Program:

- Hilcorp anticipates completing four (4) of six (6) planned stratigraphic test wells in the vicinity of the DCU prior to June 1, 2017. Two proposed drilling locations are located on a public winter trail systems and cannot be accessed in the remainder of the current 2017 POD period. Hilcorp is currently evaluating opportunities to access these locations during Q3-4 2018 (immediately after freeze-up, but prior to the occurrence of significant snowfall).
- Hilcorp continues to progress plans to drill at Middle Happy Valley and C-Pad (within the Happy Valley PA), but cannot commit to drilling until the operational and economic risk associated with such exploratory efforts is reduced.
- During the 2017 POD period, Hilcorp will initiate and complete its proposed stratigraphic test well program. Based on the results of this study, Hilcorp will set forth new exploratory drilling program in 2018 2019, likely targeting the Sterling and Beluga Formations.
- c) Workover Program: At this time, Hilcorp does not anticipate any rig well work at Happy Valley. However, if well performances changes significantly on existing wells a rig workover and perf adds will be evaluated as necessary to maintain and enhance existing DCU production.

### d) Facility Projects:

- During the 2017 POD period, Hilcorp anticipates various piping and debottlenecking projects on existing pads within the Happy Valley PA.
- Hilcorp will maintain existing plans and permits to construct both the Happy Valley C Pad and the Middle Happy Valley Road/Pad/Pipeline. Both projects will are anticipated to support future exploration and development of the DCU, but are dependent on ongoing exploration assessments.
- To the extent that Hilcorp's exploratory and development activities are successful, existing infrastructure and facilities will require expansion to accommodate increased production. Anticipated projects include:

- Add additional compression at existing surface facilities to support existing wells and increased production achieved through Hilcorp's 2017 drilling program.
- Increase the capacity of the existing surface equipment at DCU pads for gas processing by adding additional line heaters, a gas dehydration module, and liquid separation vessels with associate piping and controls.
- As required, expand the pad(s) for the drilling program and production equipment explained above.
- To the extent required, expand other infrastructure requirements, including construction or expansion of access roads, pipelines, flow lines, metering, processing and storage vessels, etc.
- 2) 2017 POD Development Plans Achieved: The extent to which the requirements of the previously approved plan were achieved is as follows:

### a) Maintain/Enhance Production:

- **Happy Valley PA:** During calendar year 2017, production from the Happy Valley PA was 5.94 million standard cubic feet per day ("MMSCF/D").
- Tract Operations (Non PA): During calendar year 2017, production from Happy Valley tract operations averaged 0 MMSCF/D. There are no wells currently producing on a tract basis.

### b) Drilling Program:

- Hilcorp completed two (2) of the six (6) planned stratigraphic test wells in the vicinity of the DCU in 2017.
- The two (2) stratigraphic test wells drilled, together with other data already obtained by Hilcorp, significantly helped our exploration and development efforts. Results and interpretations from Hilcorp's stratigraphic test wells are held confidential at this time, and can be disclosed to DNR upon request.
- **c) Workover Program:** No workover work was planned or required within the DCU during the 2017 POD period.

- **d) Facility Improvements:** No facility improvements were made during the 2017 POD period.
- 3) 2017 POD Development Plans Not Achieved: The following are actual operations that deviated from or did not comply with the previously approved plan and an explanation of the deviation or noncompliance:
  - a) **Drilling Program:** Unexpected high water flow rates from the Sterling Formation at shallow depths from the DC SW 3 and DC SW 4 wells, as well as unusually muddy conditions, prevented Hilcorp from drilling two (2) of the four (4) stratigraphic test wells that were planned.
  - b) Facility Improvements: No facility improvements were made during the 2017 POD period. The anticipated projects included on the 2017 POD were not performed.

# C. 2018 PLAN OF DEVELOPMENT

The following activities included in the 2018 POD follow the outline provided in 11 AAC 83.343 (a) and incorporate all planned development activities anticipated based on all data reasonably available at this time. The following components of the 2018 POD meet the requirements contained in 11 AAC 83.343 (c).

- 1) Long-Range Development Activities: The following are long-range proposed development activities for the DCU, including plans to delineate all underlying oil or gas reservoirs into production, and maintain and enhance production once established:
  - a) Hilcorp does not have any long-range proposed development activities for the DCU at this time.
- 2) Exploration/Delineation Plans: The following are plans for the exploration or delineation of any land in the unit not included in a participating area:
  - a) **Drill Program:** During the 2018 POD period, Hilcorp plans to continue its proposed stratigraphic test well program by drilling at least two (2), and up to four (4) stratigraphic test wells. Hilcorp still plans on setting forth new exploratory drilling program in 2019, based on the results of the stratigraphic test wells. These exploration efforts will likely target the Sterling and Beluga Formations.

- **3) Proposed Operations:** The following are details of the proposed operations for at least one year following submission of the plan:
  - a) Maintain Production: Hilcorp anticipates that current DCU production will be maintained and improved throughout the 2018 POD period, primarily through implementation of efficiencies and optimization projects.
  - b) Hilcorp will evaluate and execute well work opportunities as they arise. If well performances change significantly on existing wells a rig workover and perf adds will be evaluated as necessary to maintain and enhance existing DCU production.
- **4) Surface Location of Proposed Facilities:** The following are the surface location of proposed facilities, drill pads, roads, docks causeways, material sites, base camps, waste disposal sites, water supplies, airstrips, and any other operation or facility necessary for unit operations:
  - a) At this time, no major facility upgrades are planned for the 2018 POD period. However, as the need arises, Hilcorp will pursue improvements through various well, infrastructure and facility repairs.

Your approval of this proposed 2018 POD is respectfully requested. Hilcorp believes that this 2018 POD satisfies the requirements of 11 AAC 83.343 and is in compliance with the provisions of 11 AAC 83.303. Should you have questions, please contact the undersigned at 777-8432.

Sincerely.

Cody T. Terrell, Landman

Hilcorp Alaska, LLC

cc: Kevin Pike, Division of Oil and Gas (via email)
Sean Clifton, Division of Oil and Gas (via email)
Jason Brune, Cook Inlet Region, Inc. (via email)
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