



**ADMINISTRATIVE APPROVAL
AREA INJECTION ORDER NO. 5.024**

Mr. Larry Greenstein
Regulatory Compliance Manager
Hilcorp Alaska, LLC.
P.O. Box 244027
Anchorage, AK 99524-4027

Re: Docket Number: AIO-16-018
Request for administrative approval to allow well G-04RD (PTD 1811830) to be online in water only injection service with known tubing by inner annulus communication.
Trading Bay Unit (TBU) G-04RD (PTD 1811830)
McArthur River Field
McArthur River Middle Kenai G and Hemlock Oil Pools

Dear Mr. Greenstein:

By email dated April 22, 2016, Hilcorp Alaska, LLC. (Hilcorp) requested administrative approval to continue water only injection in the subject well.

In accordance with Rule 9 of Area Injection Order (AIO) 05.000, the Alaska Oil and Gas Conservation Commission (AOGCC) hereby **GRANTS** the Hilcorp request for administrative approval to continue water only injection in the subject well.

Hilcorp reported a potential Inner Annulus (IA) pressure communication to AOGCC while completing wellwork under Sundry 315-254. Hilcorp performed diagnostics and determined production casing damage is present between approximately 7,410 ft and 9,090 ft MD. Hilcorp installed a straddle packer to isolate the damaged casing, and this resulted in packer depths of approximately 7,240 ft MD and 9176 ft MD with the upper water injection perforation of approximately 9,295 ft MD. The surface casing shoe is 3,043 ft MD. AOGCC issued AIO 5.020 on August 14, 2015 and determined that water injection could safely continue if Hilcorp complied with the restrictive conditions set out in AA AIO 5.020. The well was returned to injection and passed a state-witnessed mechanical integrity test of the inner annulus (MITIA) on August 27, 2015. The well experienced possible tubing x inner annulus pressure communication in early September and it was subsequently found the well would not pass a standard MITIA due to a very slow pressure drop in the IA. AA AIO 5.020 is no longer necessary to the operation of G-04RD and is to be cancelled. Injection into G-04RD will be governed by provisions of AIO No. 5.024.

Hilcorp shut in the well and performed diagnostics including a static and injecting temperature survey. The surveys demonstrated fluid entry is below the packer to the perforations. Reported results of Hilcorp diagnostic procedures and wellhead pressure trend plots indicate that injection is confined to the authorized zone. Accordingly, the AOGCC believes that the well's condition does not compromise overall well integrity so as to threaten human safety or the environment.

Rule 9 of AIO 5.000 allows administrative amendment of any rule stated as long as the operator demonstrates to the AOGCC's satisfaction that sound engineering practices are maintained and the amendment will not result in an increased risk of fluid movement into an underground source of drinking water.

Finding 4 of AIO 5.000 states that the portion of aquifers beneath Cook Inlet described by a 1/4 mile area beyond and lying directly below the Trading Bay Unit are exempted for Class II injection activities by 40 CFR 147.102(b)(2)(B) and 20 AAC 25.440(c).

AOGCC's approval to continue water injection only in TBU G-04RD is conditioned upon the following:

1. Hilcorp shall record wellhead pressures and injection rate daily;
2. Hilcorp shall submit to the AOGCC a monthly report of well pressures, injection rates, and pressure bleeds for all annuli. Bleeds to be flagged on the report;
3. Hilcorp shall perform a temperature survey every 2 years to confirm injection is confined to the authorized injection zone;
4. Hilcorp shall immediately shut in the well and notify the AOGCC if there is any change in the well's mechanical condition;
5. After well shut in due to a change in the well's mechanical condition, AOGCC approval shall be required to restart injection;
6. Hilcorp shall submit to AOGCC an annual surveillance report evaluating the performance of the EOR injection by April 1st of each year covering injection operations during the previous calendar year. The report shall include data sufficient to characterize the injection operation, including among other information, the following: injection and annuli pressures (i.e. daily average, maximum, and minimum pressures); fluid volumes injected; injection rates; mechanical condition of the injection wells; and integrity of confining layers. An assessment of the applicability of the injection order findings, conclusions, and rules based on actual performance shall be included with the annual performance report; and
7. The anniversary date for the temperature survey is January 15, 2016.

DONE at Anchorage, Alaska and dated May 4, 2016.

//signature on file//
Cathy P. Foerster
Chair, Commissioner

//signature on file//
Daniel T. Seamount, Jr.
Commissioner



RECONSIDERATION AND APPEAL NOTICE

As provided in AS 31.05.080(a), within **20** days after written notice of the entry of this order or decision, or such further time as the AOGCC grants for good cause shown, a person affected by it may file with the AOGCC an application for reconsideration of the matter determined by it. If the notice was mailed, then the period of time shall be **23** days. An application for reconsideration must set out the respect in which the order or decision is believed to be erroneous.

The AOGCC shall grant or refuse the application for reconsideration in whole or in part within 10 days after it is filed. Failure to act on it within 10-days is a denial of reconsideration. If the AOGCC denies reconsideration, upon denial, this order or decision and the denial of reconsideration are **FINAL** and may be appealed to superior court. The appeal **MUST** be filed within **33** days after the date on which the AOGCC mails, **OR 30** days if the AOGCC otherwise distributes, the order or decision denying reconsideration, **UNLESS** the denial is by inaction, in which case the appeal **MUST** be filed within **40** days after the date on which the application for reconsideration was filed.

If the AOGCC grants an application for reconsideration, this order or decision does not become final. Rather, the order or decision on reconsideration will be the **FINAL** order or decision of the AOGCC, and it may be appealed to superior court. That appeal **MUST** be filed within **33** days after the date on which the AOGCC mails, **OR 30** days if the AOGCC otherwise distributes, the order or decision on reconsideration.

In computing a period of time above, the date of the event or default after which the designated period begins to run is not included in the period; the last day of the period is included, unless it falls on a weekend or state holiday, in which event the period runs until 5:00 p.m. on the next day that does not fall on a weekend or state holiday.