



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of
Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Prevention, Preparedness and Response Program

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Return Receipt Requested
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February 27, 2017

David Wilkins
Hilcorp Alaska, LLC
3800 Centerpoint Drive, Suite 1400
Anchorage, AK 99503

RE: Middle Ground Shoal Platform, Natural Gas Pipeline Release

Dear Mr. Wilkins:

Thank you for your February 20, 2017 response to the State Interest Letter dated February 10, 2017. Your letter describes a number of different activities Hilcorp has undertaken to mitigate the effects of the natural gas pipeline release. These mitigating activities include reducing both the pressure and flow through the pipeline to lower the leak rate; securing some on-platform processes, including water flood, to limit the gas demand; and the continued overflight monitoring of the surfacing release location for impacts. Additionally, Hilcorp hosted an agency overflight to assess current conditions and help satisfy the State's desire to evaluate first hand potential impacts to wildlife. I thank you for the efforts Hilcorp has undertaken to date to help manage and mitigate this ongoing release.

There seems to be some clarification necessary about the third and fourth questions in the State Interest Letter which concern quantifying the current environmental impacts and assessing potential impacts as the seasons change. Please refer to 18 AAC 75.300(d), 18 AAC 75.335(b)(2)(B), and 18 AAC 75.300(f)(12) as these form the regulatory basis for my directive below. The State cannot determine acceptable environmental conditions without first having characterized the release. Until that happens, the Alaska Department of Environmental Conservation (department) must assume potential for a worst case scenario and err on the side of caution, as we do with any oil spill or hazardous substance release. Therefore, it's imperative that Hilcorp begin a sampling and monitoring program including monitoring for fish and wildlife, water quality sampling for dissolved gases, air quality sampling at the air/water interface, and acoustic monitoring as follows:

Fish and Wildlife Monitoring

Initiate a program with trained observers to look for live or dead fish; birds; and wildlife, including marine mammals, in and near the affected area. This should occur at least weekly until ice conditions change and should include low/slow boat-based and/or helicopter-based reconnaissance. The necessary frequency is subject to change based on species distribution, weather or sea-ice conditions, etc. Experienced personnel are essential for effective surveillance. An observer should have the appropriate knowledge to properly identify species, record behavioral characteristics, be familiar with local area ecology, and make other pertinent observations. If the release extends into ice free periods, the department may request

bottom-level, mid-level, and surface-level trawl surveys to identify fish, plankton and other aquatic organisms in the area.

Water Quality Sampling

The sampling and monitoring plan should commence by collecting pilot data for the most critical pieces of information, such as dissolved methane, dissolved oxygen, and dissolved carbon dioxide concentrations at/near the release site. Follow-on sampling data will be guided by the nature and extent of pilot data and must include, but is not limited to, dissolved oxygen, dissolved methane, dissolved carbon dioxide, salinity, conductivity and specific conductance during every sampling trip, which should be conducted no less than weekly. Sampling efforts must be sufficient in frequency and geographic coverage to describe the approximate 3-dimensional plume at ebb and flood currents within the upper, middle, and lower depth zones. The sampling plan should include collection at the ebb and flood currents of maximum (spring) and minimum (neap) tide cycles, as well as during slack current periods between these tides. This information will help inform the maximum and minimum limits of the plume. An independent, qualified environmental professional, as defined in 18 AAC 75.333, must be present to characterize hazardous substance concentrations at the release site.

These data will help to validate Hilcorp's modelling efforts, or provide data to improve it, and may offer empirical evidence to clarify risks.

Air/Water Interface Sampling

Air sampling for 10% LEL, oxygen, methane, carbon dioxide, and total VOCs is essential to ensure both responder and aquatic organism safety. Results should include an approximate two-dimensional profile of the affected area. This should be done at least monthly during high-wind (>10mph) and low-wind (<5mph) conditions and continuously for site safety purposes while on water operations are occurring near the release site.

Acoustic Monitoring

Measure and report underwater acoustic levels at regular time and distance intervals from the release site to determine the likely zone being impacted by the unnatural underwater sound. This has implications for Endangered Species Act-listed species and their prey since it could affect feeding and transiting patterns within and beyond this portion of their critical habitat.

Additionally, results from daily ice reconnaissance observations should be treated as a more reliable source for current ice conditions than NOAA's ice forecasts, and these observations should be used to plan subsequent characterization activities and repair operations.

As we all know, the gas release is occurring in the critical habitat area for beluga whales, an Endangered Species Act listed organism. There is a need to understand the environmental impacts, no matter how minor, on the environment of Cook Inlet, and particularly to the food web supporting the beluga whales. Although the model development, literature review and other activities your February 20 response describes are helpful, they do not satisfy the need for real-time, on-site empirical data necessary to conduct an impact assessment and prove the veracity of the model. As such, there are a host of trustee agencies for whom this information is important. Collectively, we are available to Hilcorp staff to advise in the preparation and implementation of these sampling and monitoring programs so they can be rapidly approved by the department and satisfactorily implemented.

Provide to the department by March 8, 2017 Hilcorp's sampling and monitoring program work plan (work plan) including: the sampling and monitoring scope, procedures, duration and resources; implementation schedule; data quality plan and communication plan. The department must approve the work plan prior to Hilcorp initiating the work. Your work plan should include provision for the presence of various agency personnel in the field, which would be coordinated between Hilcorp and the department as vessel/aircraft capacity, operational safety and other conditions allow. Inability to obtain every aspect of the sampling and monitoring plan should not become grounds to not collect partial data since every element helps to characterize risk. Once sampling and monitoring is implemented, please provide me a report of the data and results weekly by close of business on Wednesday, or as soon as possible if significant environmental impacts are detected in the field. The data collected will be subject to verification and quality review by State and federal resource agency experts. You are reminded that delay or insufficient work plan preparation or quality may result in Hilcorp being deemed an unresponsive responsible party, as outlined in my original letter.

The results of the sampling and monitoring program could necessitate an order to evacuate the line to control the release. In preparation for that eventuality, provide the department with plans to shut in the necessary wells and evacuate the natural gas line by March 13, 2017. You are forewarned that doing so may become an eventuality, and that your operations should be prepared to implement those procedures and activities as quickly as the limits of operational risk and capability allow. Thank you for your attention to this matter.

Sincerely



Geoff Merrell
State On Scene Coordinator

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