



Hilcorp Takes Good Care of Alaska's Oldest Producing Oil Field

61 YEARS IN THE MAKING

**Continued Cooperative Partnership that helps responsibly maintain,
Operate and restore the Swanson River Oilfield**

IOGCC Chairman's Stewardship Award Submittal: Environmental Partnership

The Swanson River field was the first commercial oil field discovered in the Cook Inlet, triggering a massive land rush for oil and gas leases on the Kenai Peninsula. The discovery led to other major oil and gas discoveries in Cook Inlet and ultimately provided part of the justification for Alaskan statehood.

Swanson River field is located about 45 miles southwest of Anchorage in what is now known as the Kenai National Wildlife Refuge (formerly the Kenai National Moose Range). The field operates in an area of small lakes, wetlands, and rivers in rolling hill country dominated by alder, white spruce, and birch with average elevations ranging from 200 to 300 feet above sea level. Harsh winter conditions and difficult terrain have created many challenges in more than 60-plus years of successful development and field operation.

Today Hilcorp Alaska operates Swanson River Field. While the field still produces oil and gas the field is late in life and certainly looks, feels and behaves very different than it did back in the 60's. Yet Hilcorp's efforts to operate responsibly do not wane. In fact, the US Fish & Wildlife Service (USFWS) has made special note of our cooperation and partnership under their watch...

Lynnda Kahn, Fish & Wildlife Biologist for the Kenai National Wildlife Refuge had this to say about Hilcorp...

"Hilcorp Alaska, LLC, has had a positive impact on the Kenai National Wildlife Refuge (Refuge) in terms of minimizing habitat degradation related to oil and gas development.

Although we may not always agree on matters, Hilcorp continually shows a willingness to work with the Refuge, and they understand the challenges we face with balancing our mission and goals amidst on-going oil/gas activities on a national wildlife refuge. When key issues arise and are brought to their attention, such as the need for reclamation, wildlife encounters, and the

spread of invasive plants, to name a few, they work with us to address those concerns. For example, Hilcorp has been instrumental in helping the Refuge manage and eradicate, where possible, invasive plant species in the oil and gas fields by agreeing to develop and implement an Invasive Species Management Plan, and funding an approved contractor to inventory and treat targeted areas. Hilcorp also developed a Wildlife Interaction Avoidance Plan to reduce the chances of human-wildlife interactions and minimize adverse impacts to wildlife from company and contractor activities. Furthermore, Hilcorp recently started a remediation project that will result in the removal and restoration of a 2.75 acre well pad and 6-miles of gravel road, in an otherwise undeveloped portion of the Refuge. Last, but certainly not least, we were noticing, especially in the winter, that employees and contractors were leaving unattended vehicles running for extended periods of time. When we brought this to their attention, they put up signage, requiring that vehicles not be left running.”

“We believe that Hilcorp definitely deserves to be recognized for their sense of responsibility and cooperation in ensuring that, where possible, their activities are conducted in a way that minimize impacts to fish and wildlife habitat on the Refuge.” – Lynnda Kahn, USFWS

Lynnda’s accolades eventually led to Hilcorp earning the Regional Director’s Excellence Outstanding Partner Award. The award recognizes external partners who have made significant contributions to the conservation of natural resources in the region.

As is often true in legacy fields, Swanson River is home to many shut-in wells, facilities and pads that are no longer in use. Earlier this year, under the guidance of USFWS Hilcorp personnel partnered with Biological Intern, Julie “Amber” Robbins to restore Sunrise Pad located within Swanson River Field. The retired pad was originally installed in 2008 but was abandoned prior to Hilcorp’s operatorship. Through an innovative cooperative approach native forest should soon populate the landscape where industry once was.

The project was best summarized by Ms. Robbins article published by the Peninsula Clarion <http://peninsulaclarion.com/outdoors/2018-07-19/restoring-nature-1-gravel-pad-time>

Restoring Nature One Gravel Pad at a Time

By Amber Robbins

What happens to old oil and gas pads when they are no longer useful? This June, I was given the opportunity to find out.

As a biological intern at the Kenai National Wildlife Refuge, I was asked to help restore the Sunrise pad in the Swanson River Field. This retired pad, originally built by Marathon Oil

Corporation in 2008 in hopes of meeting commercial gas needs, was abandoned when production levels didn't pan out. A decade later, Kenai Refuge and Hilcorp Alaska LLC devised a strategy to remedy the problem. Hilcorp hired restoration specialist Lorene Lynn, of Red Mountain Consulting LLC (RMC), to develop a plan and lead the in-field execution with exceptionally well-thought-out details that can only be described as creative restoration.

I and three other interns were anted up by Kenai Refuge as help for the project, to which Lorene eagerly agreed. On our first day on the job, we toured the 2.75-acre gravel pad, reviewing the different methods the team planned on using to restore the pad. The team included Moore's Landscaping, a local contractor, who over the next few days would transform the flat gravel pad using heavy machinery to "dimple" the ground, creating a rough and loose ground surface that emulated the complexity of micro topography and microclimates found in nature. I learned that this method is more ideal than tilling as it does not destroy soil cohesion and it more closely resembles a natural landscape.

Together we transplanted tree seedlings from the surrounding area into the dimpled areas. We chose young spruce trees, avoiding deciduous trees such as willow or birch. This increased the likelihood of the restoration being successful by aiming to reduce potential losses from winter moose browsing, since we know they love to snack on willow.

The trees we transplanted were originally surrounded by a mat of vegetation. These vegetation mats are composed of several herbaceous plant species as well as mosses and a complex soil system that will support the health and recovery of the pad. A bobcat was used to scoop up these mats so that the root mass remained intact. Unlike many other restoration projects, we did not bring in any outside plants or material. Instead, we simply transplanted nearby vegetation. Not only does this approach save money, but it also reduces the potential of accidentally introducing invasive or other unwanted species as part of the restoration effort.

Something that Lorene reminded the team of throughout the project is that bioengineering is a matter of creating complexity across the landscape. By the end of the project, this ideal was clearly met across the entire pad—the dimpled ground, diversity in vegetation, and boulders and logs left sporadically. We also worked hard to choose young trees that really varied in size, ranging from a couple inches to a couple feet in height.

Although the pad is just a small portion of the area currently leased by Hilcorp for commercial oil and gas extraction, this particular project could provide a solid framework for future restorations. The success of the Sunrise Pad's restoration will ultimately be judged five years down the road through meticulous measurements of vegetation cover, plant species diversity, and tree density. If it proves to meet the performance standards prescribed by the restoration plan, then these unusually thoughtful methods could be used by others to restore degraded lands to more natural conditions.

I loved being able to see how individual people take extra steps to do a quality job. For example, Lorene recommended reflective mylar sheeting in response to a suggestion by Hilcorp

project manager Kelley Nixon that birds be deterred from nesting in the area before the project got underway. Together, Lorene and Kelley tied mylar to the surrounding trees, and removed them once the project started, to promote a “leave no trace” ethic. It is inspiring to be surrounded by people who view their work as more than just a job.

The chance to work on this project is not an experience lost on me. It was an incredible opportunity to see different parties interacting to make a difference. The Refuge, Hilcorp, RMC, Moore’s Landscaping, and even we interns helped transform a barren gravel pad into a natural-looking field that is now on a fast trajectory to grow into a native forest. It’s a project I can be proud to have worked on, knowing that I’ve planted hundreds of trees that will outlive myself and one day support a complex ecosystem is truly special.



Kenai National Wildlife Refuge interns Angel Smith and Laura Bashor help Hilcorp Alaska restore a retired gas pad east of the Swanson River Oil Field. (Photo by Lorene Lynn)

Find more Refuge Notebook articles (1999-present) at https://www.fws.gov/refuge/Kenai/community/refuge_notebook.html

In summary, Hilcorp’s cooperation and actions under the guidance of USFWS clearly demonstrate innovation, dedication and passion for the environment.