



GLACIER

December 23, 2016

Ms. Chantal Walsh, Director  
Alaska Division of Oil and Gas  
550 W. 7<sup>th</sup> Avenue, Suite 1100  
Anchorage, AK 99501

**Re: Submission of the North Fork Unit 52<sup>nd</sup> Plan of Development**

Ms. Walsh:

Cook Inlet Energy, LLC, a Glacier Oil and Gas company (“GLA”) hereby provides its Unit Plan of Development as required under 11 AAC 83.343 to the Division of Oil and Gas (“Division”).

A technical meeting is scheduled for January 25, 2017 with Division staff to present technical information to support the operations proposed in the enclosed Plan.

GLA looks forward to discussing this Plan of Development with the Division and moving forward with development of the North Fork Unit.

Sincerely,

Tim Jones  
Senior Landman

Cc: Becky Kruse, Unit Manager



# North Fork Unit

## 52nd Plan of Development

### Overview

The 52<sup>nd</sup> Plan of Development (“POD”) shall cover the period from March 31, 2017 through March 30, 2018.

By letter dated March 2, 2016, the Division of Oil and Gas approved the 51<sup>st</sup> POD submitted by Cook Inlet Energy, LLC, a Glacier Oil and Gas company (“GLA”) as Operator of the North Fork Unit. The 51<sup>st</sup> POD approval was for the period March 31, 2016 through March 30, 2017.

### Annual Report

The following is GLA’s annual report under 11 AAC 83.343 (d).

The development plans contained in the 51<sup>st</sup> POD consisted of:

- GLA intends to continue a development drilling program over the course of the next year. GLA intends to keep Rig 37 onsite and drill or sidetrack up to an additional three wells on the North Fork Pad. GLA intends to restart its drilling program by sidetracking the current NFU #42-35 well as #42-35A.
- Upon completion of the NFU #42-35A, GLA plans to drill at least one additional well, beginning with the NFU #14-26 well.
- GLA will analyze results from its current drilling program to evaluate opportunities to further delineate the Unit. GLA may drill another additional delineation gas well in the 51<sup>st</sup> Plan Year. Additional drilling will depend on results from the NFU #42-35A and NFU #14-26, and favorable economic conditions.

*(1) the extent to which the requirements of the previously approved plan were achieved*

- On February 8, 2015, the Alaska Oil and Gas Conservation Commission (“AOGCC”) granted GLA’s application for rules to define the North Fork Unit Undifferentiated Tyonek Gas Pool as Conservation Order 720. This application was made in support of its planned resumption of drilling operations at North Fork during the latter portion of the 50<sup>th</sup> Plan Year and the 51<sup>st</sup> Plan Year.

- On October 1, 2015, Cook Inlet Energy, LLC, (“CIE”) along with its parent company, Miller Energy Resources, Inc. (“MER”) filed for voluntary protection under Chapter 11 of the U.S. Bankruptcy Code. CIE and MER emerged from bankruptcy in March of 2016. Subsequently, MER’s ownership structure changed, and it became Glacier Oil and Gas Corporation.
- GLA has continued to analyze results from its drilling program at North Fork. Previous efforts focused on the geology of the reservoir as determined from well log analysis, including running production logs and cased-hole neutron logs in NFU #32-35 and NFU #34-26.
- GLA is reprocessing ~20 square miles of 3D seismic data which covers the North Fork Unit area. This data was acquired by Armstrong Oil and Gas, GLA’s predecessor in interest in the North Fork Unit. The reprocessing will provide high frequency data, which will allow for adequate imaging down to the specific zones of interest between 6000’ and 9000’.
- GLA is currently engaging in several “small ball” projects to enhance production from currently producing wells. GLA has set downhole plugs to control water intrusion. In addition, GLA located some zones of interest and is in the process of perforating those additional zones to increase production from the NFU #14-25 and NFU #41-35 well.

*(2) actual operations that deviated from or did not comply with the previously approved plan and an explanation of the deviation or noncompliance*

- GLA began the 51<sup>st</sup> Plan Year in Chapter 11 bankruptcy. Although GLA successfully emerged from bankruptcy in March of 2015, its new ownership has exercised a cautious drilling program due, in part, to continuing low oil prices. In addition, the local Cook Inlet gas market has become increasingly constrained as gas production is consolidated amongst fewer players, and production is increased. Simultaneously, demand for gas has lessened due to recent warmer winters and the exit of key gas users. Due to these factors, GLA was not able to economically justify any new drilling at North Fork during the 51<sup>st</sup> Plan Year.

## **Updated Plan of Development**

The following components of the 52<sup>nd</sup> POD follow the outline contained 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 52<sup>nd</sup> POD meet the requirements contained in 11 AAC 83.343 (c).

*(1) long-range proposed development activities for the unit, including plans to delineate all underlying oil or gas reservoirs, bring the reservoirs into production, and maintain and enhance production once established*

- GLA plans to enhance production from currently producing wells through infrastructure improvements. These improvements include additional compression and separation facilities.
- GLA intends to continue monitoring and analyzing production from the existing North Fork wells, and optimize production accordingly.
- As appropriate based on data review and market conditions, GLA plans to continue a development drilling program to fully delineate and develop all fault blocks within the current Unit.
- GLA is considering additional drilling pad locations as needed in order to fully develop and delineate the reservoir.

*(2) plans for the exploration or delineation of any land in the unit not included in a participating area*

- GLA will analyze results from its current drilling program to evaluate the possibility of drilling wells outside of the current boundaries of the North Fork Gas Pool #1 PA.

*(3) details of the proposed operations for at least one year following submission of the plan*

- GLA intends to complete the North Fork seismic data reprocessing prior to the beginning of the 52<sup>nd</sup> Plan Year. GLA will use this information, coupled with the previous analysis of its drilling program, to determine the best path forward for continued development of the NFU.
- The North Fork wells have started to produce small amount of water, and GLA plans to convert a currently existing but depleted well to a Class II water disposal well. GLA is currently evaluating which well will best suit this need.

- GLA plans to conduct 2 workover operations to increase production from NFU #14-25 and NFU #41-35.
- GLA will continue to seek opportunities for small production improvements through “small ball” projects, including perforating additional zones and setting plugs as necessary to control water intrusion.
- Additional drilling will depend on favorable economic conditions. GLA has several potential candidate wells for additional drilling, including NFU #42-35A and NFU #22-26, which has a fallback location to NFU #14-26.

*(4) 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*

- GLA will evaluate the potential need to expand the infrastructure at the North Fork Pad, including increasing the Pad footprint and adding of new compression and dehydration equipment to allow processing of increased gas volumes.

### **Statement of Operator**

Cook Inlet Energy, LLC, a Glacier Oil and Gas company, as North Fork Unit Operator, submits this annual report and update to the North Fork Unit Plan of Development under 11 AAC 83.343. The Operator believes that this 52<sup>nd</sup> POD satisfies the requirements of 11 AAC 83.343, including compliance with the provisions of 11 AAC 83.303.



Conrad Perry  
Drilling Manager  
Cook Inlet Energy, LLC, a Glacier Oil and Gas company

Attachments: North Fork Unit Production  
Well Status

## North Fork

Date	NFU	NFU Produced Gas (MCF)	NFU Cumulative Produced Gas (MCF)
Dec-15	251,560	251,560	251,560
Jan-16	250,730	250,730	502,290
Feb-16	227,493	227,493	729,783
Mar-16	211,047	211,047	940,830
Apr-16	201,889	201,889	1,142,719
May-16	146,784	146,784	1,289,503
Jun-16	137,020	137,020	1,426,523
Jul-16	124,429	124,429	1,550,952
Aug-16	121,790	121,790	1,672,742
Sep-16	147,648	147,648	1,820,390
Oct-16	198,325	198,325	2,018,715
Nov-16	168,691	168,691	2,187,406
TOTAL			2,187,406

<b>CURRENT WELL STATUS</b>			
<b>WELL</b>	<b>STATUS</b>	<b>DATE</b>	<b>REASON</b>
NFU 41-35	Shut -in	11/2016	suspended pending workover
NFU 34-26	Producing	4/2011	North Fork Undefined Gas
NFU 32-35	Producing	3/2011	North Fork Undefined Gas
NFU 14-25	Producing	11/2012	North Fork Undefined Gas
NFU 23-25	Shut-in	4/2013	suspended pending further analysis
NFU 22-35	Producing	1/2013	North Fork Undefined Gas
NFU 24-26	Producing	3/2015	North Fork Undefined Gas
NFU 42-35	Producing	3/2015	North Fork Undefined Gas