THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Natural Resources
DIVISION OF OIL AND GAS
550 W. 7th Avenue Suite 1100
Anchorage, Alaska 99501-3560
Main: 907.269.8800
Fax: 907.269.8939

January 24, 2018

Patrick Conway
Permitting and Regulatory Coordinator
Armstrong Energy, LLC
510 L Street, Suite 310
Anchorage, AK 99501

RE: **LONS 17-003**, **Armstrong**, **Pikka Unit**, **Pikka 2 2017-2018 Winter Drilling Program Unit Plan of Operations Decision Exploration Phase**

Dear Mr. Conway:

I. INTRODUCTION

On September 28, 2017, Armstrong Energy, LLC (Armstrong) submitted a request to the Division of Oil and Gas (Division) for approval of a Unit Plan of Operations (Plan) to carry out the Pikka 2 2017-2018 Winter Exploration Drilling Program (Pikka 2) in the Pikka Unit (PKU). The Pikka 2 is approximately six miles northeast of Nuiqsut. Approval of the Plan, along with approvals from other state and federal agencies (Agencies), is necessary for Armstrong to carry out this project. Any further exploration is subject to additional review and approval by the Department of Natural Resources (DNR).

II. SCOPE OF DECISION

The DNR Commissioner has delegated authority for approval of Plan activities to the Division under Department Order 003 in accordance with Alaska Statute (AS) 38.05 and 11 Alaska Administrative Code (AAC) 83.346. The Division has evaluated the proposed Plan to determine if sufficient information as required by 11 AAC 83.346 is provided. The Division has also considered that criteria set forth in 11 AAC 83.303. In approving a Plan, the Division may require amendments that it determines are necessary to protect the State's interests (11 AAC 83.346(e)).

This Plan Decision (Decision) will review the Pikka 2 well and an associated ice road and ice drilling pad on three oil and gas leases. In addition to the initial well, Armstrong proposes to drill two sidetracks from a single surface hole location. All wells will be drilled to a True Vertical Depth (TVD) of 9,000 feet or less, and plugged and abandoned upon completion. The purpose of the drilling and testing activities is to better understand subsurface reservoir characteristics in the PKU.

The following Plan elements require authorization from other agencies:

Agency	Permit(s)
Alaska Oil and Gas Conservation Commission (AOGCC)	Permit to Drill
Alaska Department of Environmental Conservation (ADEC)	Oil Discharge Prevention and Contingency Plan (C-Plan) Temporary Drilling Waste Storage MG-1 Minor Air Quality Permit Stormwater Pollution Prevention Plan
Alaska Department of Fish and Game (ADF&G)	Fish Habitat Permits Lakes Fish Habitat Permits – Ice Roads and Pads Public Safety Permit
DNR Division of Mining, Land & Water (DMLW)	Land Use Permit – Ice Roads and Pads Temporary Water Use Temporary Staging and Storage
DNR Office of History and Archaeology (OHA)	Cultural Resource Surveys and Clearance
North Slope Borough (NSB)	Development Permits and Administrative Approvals
US Environmental Protection Agency (EPA)	Spill Prevention, Control, and Countermeasures Plan
US Fish and Wildlife Service	Polar Bear Letter of Authorization for Incidental/Intentional Take

III. LAND STATUS

The project area comprises both state and non-state lands.

A. Division's Leased Lands: This section refers to Division-managed oil and gas leases regardless of ownership of overlying surface lands.

Oil and Gas Lease: 393028
Oil and Gas Mineral Estate Lessee(s): Armstrong Energy, LLC
Surface Ownership and Access Agreement: Kuukpik Corporation
Special Use Lands: None
Jointly Managed Lands: State/ASRC subsurface
Other Considerations: None

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Wellbore (Pikka 2A)	Umiat, T11N, R5E, Sec. 35	N/A (linear)
Pikka 2 Drill Site – Surface hole location	Umiat, T11N, R5E, Sec. 35	70 16' 6.600"N, 150 47' 48.501"W
Ice Roads	Umiat, T11N, R5E, Sec. 35	N/A (linear)

Oil and Gas Lease: 392975
Oil and Gas Mineral Estate Lessee(s): Armstrong Energy, LLC
Surface Ownership and Access Agreement: Kuukpik Corporation
Special Use Lands: None
Jointly Managed Lands: State/ASRC subsurface
Other Considerations: None

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Wellbore (Pikka 2)	Umiat, T11N, R5E, Sec. 34	N/A

Oil and Gas Lease: 393027
Oil and Gas Mineral Estate Lessee(s): Armstrong Energy, LLC
Surface Ownership and Access Agreement: Kuukpik Corporation
Special Use Lands: None
Jointly Managed Lands: State/ASRC subsurface
Other Considerations: None

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Wellbore (Pikka 2B), Ice Road	Umiat, T11N, R5E, Sec. 26	N/A

B. State of Alaska Surface Lands: This section refers to State owned surface lands where no Division-managed oil and gas leases exist.

Not applicable to this project.

C. Non-State Lands: This section refers to areas where the State does not own the surface land and no Division-managed oil and gas leases exist.

Not applicable to this project.

IV. PROPOSED OPERATIONS

The Plan describes the proposed operations in full detail. The following is a summary of the key details.

A. Well Sites

An ice pad will be constructed to accommodate the well and associated facilities and equipment. The drilling ice pad will be approximately 600 feet by 700 feet in area. Armstrong has requested an exception for the siting of the Pikka 2 drilling pad, as discussed in Section L below.

The well will be plugged and abandoned prior to demobilization from the site. Well stimulation, fracturing, and flow testing activities may be performed at the well site, if deemed appropriate.

The planned well design will be similar to that employed in previous exploration wells and in accordance with a Permit to Drill from the AOGCC.

B. Buildings

Pikka 2 will require the following infrastructure to be installed on the pad: drilling rig (Doyon Rig #14 or #16 or similar), maintenance buildings, storage Conexes, camps, office buildings, a communication tower, and other small temporary support structures. All buildings will be transported to the project site from Deadhorse during mobilization and will be removed at the completion of drilling operations.

C. Fuel and Hazardous Substances

State and federal regulations require that a number of contingency plans be in place for drilling operations. Specific details of the facilities, spill risks, potential impacts, and mitigation measures are provided in these various plans. Small (typically 10,000 gallons or less) ultra-low sulfur diesel (ULSD) and unleaded gasoline storage tanks will be installed at the construction ice pad and the drilling ice pads to provide fuel for project equipment and vehicles. Crude oil testing tanks would be installed at the well site (typically 400-barrel capacity) for flow testing of the well. The drill rig contains several large fuel tanks to power the rig generators and heaters. Onsite hazardous chemicals, typical of a drilling exploration program, will be stored in 55-gallon drums or larger totes prior to use. All fuel and hazardous chemicals will be stored inside a secondary containment with a capacity to hold 110 percent of the volume of the largest tank. Fuel and oil will be managed and transferred as mandated by the ADEC Oil Discharge Prevention Contingency Plan and project-specific Spill Prevention Control and Countermeasure Plan. Drip pans will be placed beneath vehicles and equipment when not in use. All containers will be properly labeled.

D. Solid Waste Sites

The majority of waste generated during drilling operations will consist of water-based and oil-based drilling mud and cuttings. Waste will be stored onsite, in accordance with an ADEC temporary storage permit, until it can be properly disposed. Waste injection and disposal facilities (Class 1 and Class 2) from other operators on the North Slope will be used by contractual arrangement. All other waste will be disposed of at approved facilities, including the NSB SA-10 facilities. Hazardous waste will be disposed in accordance with EPA regulations. There will be no solid waste disposal at the project site.

E. Water Supplies

Fresh water will be utilized from permitted water sources for ice road and pad maintenance and construction, drilling, and camp operations. Lake water sources planned for use this winter include Lakes K214, K210, L9334, L9335, L9129, M1407 and M9505. Pre-treated potable water will be purchased primarily from offsite water suppliers and shipped to the site. Armstrong estimates that 50-60 gallons of water per person will be required daily. Raw lake water and ice chips will be obtained in accordance with DNR Temporary Water Use Authorizations (A2013-236, A2012-140, A2014-115, A2014-119, and A2014-120) and ADF&G Fish Habitat Permits (FH11-III-0324 A.2, FH13-III-0380, FH14-III-0233, FH14-III-0239, FH14-III-0237, FH16-III-0202, and FH16-III-0116).

F. Utilities

Power will be generated onsite using portable generators. Communication towers and equipment will be provided by a telecommunications contractor.

G. Material Sites

Due to its temporary, exploratory nature, no material sites will be used.

H. Roads

Approximately 13.5 miles of ice roads will be constructed using water and ice chips from nearby lakes. The main ice road will be approximately 35 feet wide. Ice crossings of fish-bearing streams will be constructed in accordance with Fish Habitat Permits from ADF&G. Existing gravel roads will be used whenever possible.

I. Airstrips

No airstrips will be constructed. The Deadhorse Airport (SCC) will be the primary location for all air transport.

J. All Other Facilities and Equipment

A 500 feet by 500 feet ice construction pad will be built near the start of the ice road near the existing gravel Mustang Pad. This pad will contain a camp, telecommunications equipment, and a security shack, and will be used to support ice road construction and ongoing maintenance activities. The existing gravel Mustang Pad will be used as a staging area for materials and equipment.

K. Rehabilitation Plan

The proposed operations are temporary and exploratory in nature and conducted from ice pads and ice roads that will melt during spring break up. In accordance with federal, state, and local agencies, all spills will be reported and cleaned up immediately. Armstrong will remove all structures, materials, and debris from ice pads and roadways prior to spring breakup in May 2018. A follow-up survey will be conducted in the summer to remove any remaining debris and monitoring equipment from the tundra surface. When drilling and evaluation operations are complete, the well will be either plugged and abandoned, in accordance with AOGCC regulations.

L. Operating Procedures Designed to Minimize Adverse Effects

Fish and Wildlife Habitats: Ice pads and ice roads are to be used only in winter months. Streams will be crossed in shallow areas that normally freeze to the bottom. The ice road route and drilling pad locations were selected to avoid willow habitats and to be as far away from the banks of the Colville River as practicable. A Wildlife Interaction Plan will be developed and implemented to minimize conflicts with wildlife.

Historic and Archaeological Sites: Cultural resource surveys were conducted in the project area and completed in August 2017. These surveys and proposed ice road and pad locations were coordinated with DNR OHA and NSB. The ice road route and drilling pad location were selected to avoid known cultural resource sites, with one exception. The ice road route intersects the Colville #1 Peat Road (HAR-00173), a 46-mile-long historic road, at approximately mile 2.7 of the ice road. In 2017, the resource was recommended eligible for the National Register of

Historic Places and received State Historic Preservation Office (SHPO) concurrence. Because of the type of resource and its length, the SHPO determined that an ice road intersecting HAR-00173 would not adversely affect the resource (File No. 313-3RNSB – 2016-01264 and 3130-2RDMLW – 2017-01045). To avoid adverse effects, the ice road crossing of the Peat Road was selected at a location where the road has subsided and is no longer visible. Should cultural resources be discovered during project activities, work in the vicinity of the find will cease, the OHA and SHPO will be notified, and a professional archaeologist will be consulted.
Public Use Areas: Public use of the area during the winter is limited primarily to local subsistence activities. Subsistence representatives will be available onsite during operations to minimize impacts to subsistence activities.

Training Programs: Armstrong and all other field personnel will be North Slope Training Cooperative (NSTC) trained. NSTC training addresses the following topics: camps, and safety orientation, use of personal protective equipment, hazard communication, pipeline awareness, environmental excellence, and hazardous waste awareness. Armstrong will have trained staff onsite at all times that are familiar with project-specific subsistence, environmental, social, and cultural concerns and will periodically provide awareness training and oversight to contractors and subcontractors as it pertains to their scope of work.

Other Uses: The only other uses in the general area will be possible activities by other oil and gas companies or geophysical companies. If identified, Armstrong will coordinate with those companies to discuss and avoid operational problems with concurrent activities.

In approving a Plan, DNR may require amendments necessary to protect the State's interest (11 AAC 83.346). The Division has determined that to protect the State's interest, it is necessary to incorporate the 2008 North Slope Areawide Mitigation Measures or the most recently adopted North Slope Areawide Mitigation Measures. Armstrong addressed these mitigation measures in the application process, but it is necessary to amend the Plan to make clear that the Plan incorporates the North Slope Areawide Mitigation Measures.

All Plan applicants must complete a mitigation measure analysis form demonstrating that each mitigation measure is satisfied or inapplicable to the proposed Plan, or that the applicant is seeking an exception. The North Slope Areawide Mitigation Measures allow for the Division to grant an exception if the applicant shows that compliance with the measure is not practicable or that the applicant will undertake an equal or better alternative to satisfy the intent of the mitigation measure. Armstrong completed the mitigation measure analysis for the North Slope Areawide and seeks an exception to the mitigation measure discussed below.

North Slope Mitigation Measure: A.1.c

To the extent practicable, the siting of facilities will be prohibited within 500 feet of all fish-bearing streams and waterbodies and 1,500 feet from all current surface drinking water sources. Additionally, to the extent practicable, the siting of facilities will be prohibited within one-half mile of the banks of the main channel of the Colville, Canning, Sagavanirktok, Kavik, Shaviovik, Kadleroshilik, Echooka, Ivishak, Kuparuk, Toolik, Anaktuvuk and Chandler Rivers. Facilities may be sited within these buffers if the lessee demonstrates to the satisfaction of the Director, in consultation with ADF&G, that site locations outside these buffers are not practicable or that a

location inside the buffer is environmentally preferred. Road, utility, and pipeline crossings must be consolidated and aligned perpendicular or near perpendicular to watercourses.

Armstrong provided the below request and explanation for the exception:

The proposed drilling location is within one-half mile from the banks of the Colville River. The drilling well location is greater than 500 feet from the Colville River. The main ice road is within 500 feet of fish-bearing streams at stream crossing locations, but avoids the main channel of the Colville River by greater than 500 feet. Lake water access spurs to Lakes L9335 and L9334 are within 500 feet of the main channel of the Colville River, but these spurs will only be used by ice road construction equipment and water-hauling trucks. The proposed drilling location is temporary in nature. The proposed project area will only be used to drill a temporary well during the winter when sufficient ice thickness is present on all waterbodies. Other than cleanup activities during the following summer, no activities will occur at the location after completing the winter drilling operations. No known surface drinking water sources are within 1,500 feet of the proposed operations. The proposed drilling and ice road locations inside of the buffer are the most environmentally preferred when compared to other alternatives. The drilling location is located as far from the Colville River as possible, while still being able to reach targeted drilling locations. The ice road and lake water access spur locations were selected as the environmentally preferred route, in order to avoid sensitive willow habitats and to cross streams at shallow areas where ice will naturally ground to the stream-bed.

The intent of this measure is to minimize impacts to the tundra, protect it from contamination from a fuel or hazardous substance spill or leak, and to reduce habitat loss through erosion or other disturbances from facility construction and placement. The Division finds that Armstrong has shown rationale that proposed activities in the Plan equally satisfy the intent of this mitigation measure. Armstrong proposes to site a temporary exploration facility within one-half mile from the Colville River and build an ice road within 500 feet of fish-bearing streams at stream crossing locations. The Division grants an exception to this mitigation measure to allow for the Applicant's alternative as set forth in the Plan. This exception does not apply to activities that the Applicant may propose in future or amended plans of operations.

The Division has determined that to protect the State's interest, it is necessary to incorporate the 2008 North Slope Mitigation Measures as amendments and stipulations to this Plan (11 AAC 83.346).

M. Phased Evaluation

This Plan begins Armstrong's exploration phase of three oil and gas leases; ADLs 393028, 392975, and 393027. The Plan addresses exploration activities for Pikka 2 and two additional sidetracks from a single surface location; however, based on the results of this exploration, the Division anticipates that Armstrong may submit a separate Plan for additional exploration wells. Thus, in considering the exploration phase, the Division considered both the specific activities proposed under this Plan, as well as typical additional exploration activities that Armstrong might propose for further exploring the leases.

The Division considered the potential impacts of exploration on public and State interests. In the oil and gas context, the public interest includes maximizing economic and physical recovery of

oil and gas resources (AS 38.05.180(a)(1)). The State has an interest in protecting the public interest, and in encouraging assessment of oil and gas resources while minimizing the adverse impacts of exploration, development, production, and transportation activities (AS 38.05.180(a)(2)).

In considering potential impacts, the Division also considered the operating procedures Armstrong has designed to minimize adverse effects of the Plan activities. These operating procedures include complying with the mitigation measures attached to the leases. These measures come from the North Slope Areawide Best Interest Finding (BIF) to address potentially negative effects of oil and gas exploration on fish and wildlife species, habitats and their uses, subsistence uses, and local communities. Armstrong has provided a mitigation measure analysis, which is required as part of their Plan submittal.

i. Facilities impacts on the project area.

All proposed facilities are temporary in nature and will be conducted from ice pads and ice roads that will melt during spring breakup. Armstrong has designed, sited, and proposed to operate the exploration drilling facilities in accordance with the North Slope Mitigation Measures. All activities are designed to take place on temporary ice infrastructure and are intended to avoid or minimize impacts to wetlands. No new gravel placement is proposed for Pikka 2. Existing gravel roads and a temporary ice road will be used to transport materials and equipment to the project area. Demobilization of the facilities is expected to occur prior to spring breakup in May 2018, in accordance with the North Slope Mitigation Measure A.1.i. The well will be plugged and abandoned in accordance with AOGCC regulations.

Fuel and hazardous substances potential impacts on the project area

The exploratory drilling proposed under the Plan, as well as other exploratory drilling Armstrong might propose during the exploration phase, will result in drilling muds, cuttings, and produced water and pose some risk of a spill. Discharges of drilling muds, cuttings, and produced waters; oil spills; and accidental spills of fuel, lubricants, or chemicals can all have impacts to water, wildlife, and habitats during this exploration program. Impacts from exploration activities, from either disposal activities or a spill, could adversely affect water quality; however, impacts are expected to be local and temporary because of dilution, settling, and other natural altering and regenerative processes. Further, Pikka 2 activities are planned to take place during Winter 2017-2018 and conclude before spring breakup. Discharges and accidental spills of hazardous materials will occur while the environment is frozen and are expected to be contained before open water is present.

Drilling Muds and Produced Water

Byproducts of drilling activities include muds and cuttings, produced water, and associated wastes. Produced water contains naturally-occurring substances such as clay, sand, oil, water, and gas. Most drilling wastes are disposed of under ADEC's Solid Waste Program. Re-injection is the preferred method for disposal of drilling fluid. Disposal of drilling muds and cuttings requires permit approval. Most oil field wastes are considered non-hazardous and waste fluids are recycled, filtered, and treated before reinjection or disposal. Cuttings and waste fluids must be made non-hazardous before injection. Produced water is treated using heat, gravity settling, and gas flotation devices to remove hydrocarbons. After treatment, produced water is re-injected into either the oil-bearing formation, to maintain pressure and enhance recovery, or into an

approved disposal well. Cuttings disposal is done through grinding and injecting onsite, or cuttings are transported to an approved disposal site. Wastewater, including sanitary and domestic graywater, is also treated before discharge to meet effluent guidelines.

During exploration drilling, muds and cuttings are stored onsite, in holding tanks, or in a temporary reserve pit and then hauled to an approved solid waste disposal site or re-injected into the subsurface at an approved injection well. All production muds and cuttings on the North Slope are re-injected into a Class II injection well. All produced waters are re-injected either into the producing formation or an injection well. The AOGCC oversees proper and safe handling and disposal of drilling wastes and the underground operation of the Alaska oil industry on private and public lands and waters. The AOGCC administers the Underground Injection Control Program for oil and gas wells, acts to prevent waste of oil and gas resources and ensure maximum recovery, and protects subsurface property rights. All disposal wells inject fluids deep beneath any drinking water aquifers. North Slope Mitigation Measure A.4.j states that the preferred method for disposal of muds and cuttings from oil and gas activities is by underground injection.

Armstrong's Plan states that waste drilling muds and cuttings will be disposed of onsite by annular injection, or hauled to the PBU Grind and Inject Facility for processing and disposal. If necessary, Temporary Storage Permits will be obtained from ADEC for the temporary storage of drilling waste. Solid drilling waste may be placed in open-top metal tanks or shale bins located next to the drilling mud processing units. Waste liquid drilling fluids will be stored in closed tanks. The drilling waste can be pumped out of the tanks/bins and hauled directly offsite for disposal, or temporarily stored onsite in shale bins until frozen prior to disposal. Drilling waste will be transported as it is generated to the extent practicable. After the removal of drilling waste from the storage area, a visual site inspection will be performed to verify that all drilling waste has been removed. A final site inspection report, including drilling waste volume and final disposition of waste, will be submitted to ADEC as required under 18 AAC 60.430. All drilling waste will be disposed of prior to completion of winter operations.

Accidental Spills

Impacts resulting from accidental spills would depend on the type of product, location, volume, season, and duration of the spill or leak, and the effectiveness of the cleanup response. Heavy equipment; such as trucks, tracked vehicles, and tank trucks; commonly use diesel fuel, gasoline, motor oil, hydraulic fluid, antifreeze, and other lubricants. Spills or leaks could result from accidents, during refueling, or from corrosion of lines. Fuel and hazardous substances must have secondary containment apparatuses. A secondary containment or surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, and appropriate spill response equipment must be on hand during any transfer or handling of fuel or hazardous substances. Armstrong's Plan states that fuel will be stored in tanks within lined secondary containment or other appropriate fuel storage areas with a containment capacity of 110 percent or more of the largest tank plus precipitation. Fuel storage, handling, transfers, and spill reporting will be conducted in accordance with the requirements described in Armstrong's C-Plan (16-CP-5194), the North Slope Environmental Field Handbook, and the Alaska Safety Handbook.

Oil Spills

The effects of an oil spill during the winter are limited due to the short season and temporary nature of the exploration program. There are no production activities, permanent facilities, or pipelines proposed. Armstrong has proposed temporary activities during winter months, and the Division anticipates any future exploratory drilling would also take place during winter, when the risk from spills is lower.

Mitigation measures include development of oil spill contingency plans and providing adequate spill response training.

North Slope Mitigation Measures require that sites be protected from leaking or dripping fuel and hazardous substances; secondary containment shall be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers; vehicles cannot be refueled within the annual floodplain; containers must be marked with the contents and lessee/contractor name; waste from operations be reduced, reused, or recycled to the maximum extent practicable; muds and cuttings should be disposed of by underground injection, where practicable; and that proper disposal of garbage and putrescible waste be utilized.

Armstrong's mitigation measure analysis states that fuel and hazardous substances will be stored at least 100 feet from any water body and no known surface drinking water sources are in the vicinity of proposed project operations (A.4.b). Drip pans or liners will be placed under parked vehicles or equipment to capture fluids (A.4.c) and surface liners will be used under all potential spill points. Armstrong will verify that adequate sorbents are on hand during fuel transfers, and ensure that personnel are properly trained and understand proper procedures for handling flammable and combustible fluids (A.4.d). All containers with fuel or hazardous substances will be labeled with the contents and lessee's/contractor's name (A.4.f), and solid burnable waste may be incinerated on location. All wastes generated as part of operations will be reinjected or hauled offsite for disposal at an approved facility (A.4.h).

ii. Habitat, Fish, Wildlife and Subsistence

Any exploration activity can impact habitat, fish, and wildlife. The North Slope Mitigation Measures are designed to minimize these impacts. Pikka 2 activities will take place over a limited time period and involve ice roads and temporary facilities. The Division anticipates impacts to habitat, fish, and wildlife will also be limited and temporary. The Division also anticipates that any future Plans for the exploration phase will involve similarly limited and temporary activities and impacts.

Fish

The Colville River is an anadromous stream, supporting the spawning and overwintering of several species of fish that then migrate to nearshore coastal waters to feed in the summer. Migration patterns vary by species and within species by life stage. Potential effects of exploration activities include degradation of stream banks and erosion, reduction of or damage to overwintering areas, impediments to migration, and fish kills due to oil spills. Erosion is a potential habitat impact at the exploration phase. Erosion results in siltation and sedimentation, which in turn may result in a reduced or altered stream flow that may affect overwintering habitat availability and the ability of fish to migrate upstream. Protecting the integrity of stream

bank vegetation and minimizing erosion are important elements in preserving fish habitat. Streambeds could be affected if stream banks are altered from equipment crossings.

Withdrawal of water from lakes and ponds could affect fish overwintering habitat by entraining juvenile fish, lowering water levels, and increasing disturbance. Removal of water from lakes where fish overwinter may affect the viability of overwintering fish, and longer-term effects of lake drawdown may impede the ability of fish to return to the lake in subsequent years. Removal of snow from lakes may increase the freeze depth of the ice, kill overwintering and resident fish, and adversely affect the ability of fish to utilize the lake in future years.

North Slope Mitigation Measure A.2.b requires that removal of water from fish-bearing rivers, streams, and natural lakes have prior written approval by the DMLW and ADF&G. Water intake pipes used to remove water from fish-bearing waterbodies must be surrounded by a screened enclosure to prevent fish entrainment and impingement, with screen mesh size no greater than 1 mm (0.004 inches), unless another size is approved by ADF&G. The maximum water velocity at the surface of the screen enclosure may be no greater than 0.1 foot per second, unless an alternative has been approved by ADF&G.

Before a permit to appropriate water is issued, DMLW considers local demand and may require applicants to conduct aquifer yield studies. Generally, water table declines associated with the upper unconfined aquifer can be best mitigated by industrial users tapping confined (lower) layers or searching for alternate water sources.

Wildlife

Exploration-related disturbance is expected to have minor impacts on caribou, particularly large groups, with animals being briefly displaced from feeding and resting areas during drilling operations and when vehicles pass nearby. Vehicle traffic, exploration, development, and production activities associated with ongoing oil production, such as activities associated with the Colville River Unit, have the potential to affect habitat use. Acute disturbance may result in a net effect on habitat availability for those individuals with fidelity to the Kuparuk-Colville calving areas, but may have little or no effect on the Central Arctic herd population. It is expected these disturbances would be short term.

Moose are present across the North Slope, with the largest concentration along the Colville River and its tributaries. Moose generally remain in the foothills and along river corridors. The Pikka 2 drilling pad is near the Colville River and tributary and may impact the North Slope moose population. Armstrong's Pikka 2 program is temporary in nature, consisting of a single exploration ice pad and ice road, and is expected to have minimal effect on the North Slope moose population.

The temporary displacement of some polar bears from preferred habitats may result from routine exploration activities such as the proposed Plan activities and activities Armstrong proposes throughout the exploration phase. Females in dens are at risk for disturbance from any vehicular traffic or drilling noise. Due to its proximity to existing oil and gas infrastructure and location approximately 14 miles inland from the coast, Pikka 2 is unlikely to significantly increase temporary displacement and disturbance above levels caused by existing oil and gas activities.

Polar bears continually search for food. Once bears find a camp or industrial site, they will often enter to explore and search for food. If a bear receives a food reward, then it is more likely to return. Polar bears often investigate not only things that smell or act like food, but also novel sights or odors. Subadult bears are more likely to be food-stressed and attracted to human activity than well-fed bears. Subadults are also less likely to leave if a potential food source is present. Attractants include kitchen odors, deliberate feeding, accessible garbage, sewage lagoons, carcasses, industrial materials, and alteration of habitat.

Brown bears can be found throughout the Arctic region in varying densities. The lowest densities occur along the coastal plain; brown bears are at the northern limits of their range in the Arctic. Food availability is limited and their reproductive potential is low. Brown bears may be subject to disturbance from oil and gas activity. During exploration, human activity may attract foraging bears, especially to refuse disposal areas. Omnivores are attracted to food and food odors associated with human activity, and may become conditioned to non-natural food sources. This may pose a threat to human safety and the potential need to dispatch nuisance animals. Bears can also be displaced by human land use activities.

There are several regulations imposed by state, federal, and local agencies that are implemented to avoid, minimize, and mitigate these potential effects to bears. In addition to complying with the Endangered Species Act and the Marine Mammal Protection Act, Armstrong must comply with mitigation measures to minimize effects of exploration activities on bears.

Subsistence

Traditional subsistence uses in the area include: brown bear, caribou, musk ox, and moose harvesting; hunting and trapping of furbearers such as wolf, fox, weasel, wolverine, and squirrel; hunting migratory waterfowl and collecting their eggs; fishing for whitefish, char, salmon, smelt, grayling, trout, and burbot; collecting berries, edible plants, and wood.

Potential exploration activities that could have effects on subsistence uses in the area include discharges from well drilling and ongoing disturbances from operation activities such as vehicle traffic. Noise, traffic disturbance, and oil spills generally produce short-term impacts on subsistence opportunities.

The North Slope Areawide Best Interest Finding (BIF) contains several mitigation measures intended to reduce conflicts with subsistence, commercial, and sport harvest activities. Prior to submitting a Plan to the Division, the lessee must consult with affected subsistence communities and the NSB to discuss reasonably foreseeable effects on subsistence during the proposed operations, and methods of proposed operations and safeguards or mitigation measures that can be implemented to prevent unreasonable conflicts. The lessee must make reasonable efforts to ensure that the proposed exploration activities are compatible with subsistence hunting and fishing, and will not result in unreasonable interference with subsistence harvests. The Division may implement restrictions, as appropriate, to reduce potential conflicts.

iii. Historic or Archaeological Sites

While exploring, Armstrong could encounter prehistoric, historic, or archaeological sites. AS 41.35.200 addresses unlawful acts concerning cultural and historical resources. In addition, all field-based response workers are required to adhere to historic properties protection policies

that reinforce that it is unlawful to collect or disturb, remove, or destroy any historic property or suspected historic property and to immediately report any historic property they see or encounter.

Under North Slope Borough municipal code (NSBMC), proposed exploration shall not impact any historic, prehistoric, or archaeological resource before the assessment of that resource by a professional archaeologist (NSBMC 19.50.030(F)). NSBMC 19.70.050(F) says, "Development shall not significantly interfere with traditional activities at cultural or historic sites identified in the Coastal Management Program." These provisions give the NSB authority to protect cultural and historic resources and current subsistence uses of these sites.

North Slope Mitigation Measures require the lessee to conduct an inventory of prehistoric, historic, and archaeological sites within the area affected by an activity. The inventory must include consideration of literature provided by the NSB, nearby communities, Native organizations, and local residents; documentation of oral history in regard to prehistoric and historic uses of such sites; evidence of consultation with the Alaska Heritage Resources Survey and the National Register of Historic Places; and site surveys. The inventory must also include a detailed analysis of the effects that might result from activity. A cultural resources survey and inventory was conducted in the project area to identify any prehistoric, historic, or archaeological sites.

Archaeological and cultural resource surveys were conducted in the project area to identify any prehistoric, historic, or archaeological sites. As part of the survey, Traditional Land Use Inventory (TLUI) data was obtained from NSB Inupiat Heritage and Language Center (IHLC) and data was obtained from the Alaska Heritage Resources Survey from SHPO. As part of stakeholder engagement, local residents will be consulted about the presence of historic or cultural resources in the project area. Results of archaeological surveys, including an analysis of any effects, were submitted to SHPO and NSB. Armstrong has obtained cultural clearance from the SHPO and NSB Cultural Resources Department on potential historical and archaeological resources. If cultural resources are discovered during project activities, Armstrong will cease work in the vicinity of the find, notify SHPO, and consult a professional archaeologist.

V. CONSIDERATION OF UNIT PLAN OF OPERATIONS REQUIREMENTS UNDER 11 AAC 83.346(c-d) AND 11 AAC 83.390

A. Full Payment of Damages to the Surface Owner 11 AAC 83.346(c)

Armstrong is pursuing an agreement with Kuukpik Corporation. Before undertaking operations Armstrong shall provide for full payment of all damages sustained by the owner of the surface estate through the access agreement or through the AS 38.05.130 provision.

B. Plan Sufficiency 11 AAC 83.346(d)

A proposed plan must include statements, maps, or drawings setting forth

(1) the sequence and schedule of operations;
(2) the projected use requirements directly associated with the proposed operations;
(3) plans for rehabilitation; and
(4) a description of operating procedures to prevent or minimize adverse effects on natural resources and concurrent uses of the area (11 AAC 83.346(d)).

The information in Section IV: Proposed Operations, and additional information contained in Armstrong's proposed Plan satisfy the requirements for a Plan under 11 AAC 83.346(d) and thus provide the Division with sufficient information to determine the surface use requirements and impacts directly associated with the proposed operations.

C. Oil and Gas Lease Bond 11 AAC 83.390

The State owns a portion of the mineral estate the Plan proposes to explore from. For the State, a lessee provides for payment of damages by posting a bond, and remains liable for full damages under the lease. Armstrong has a Statewide Oil and Gas Bond in the amount of $500,000 and continuing liability under the lease.

VI. CONSIDERATION OF 11 AAC 83.303 CRITERIA

A. Protection of Public Interest

The Division has considered the public interest, taking into account statutory provisions that provide for conserving natural resources through unitized development (11 AAC 83.303(a); AS 38.05.180(p)). The legislature has declared the public's interest in oil and gas development as an interest in developing oil and gas resources to maximize economic and physical recovery, maximize competition, and maximize use of Alaska's human resources (AS 38.05.180(a)(1)).

This Plan addresses the means for carrying out the Pikka 2 that, as determined by the 2018 Plan of Exploration (POE), is necessary for maximizing recovery of the oil and gas resources. Additionally, development under this Plan will contribute positively to the market by increasing overall oil and gas production in the area.

The proposed Plan provides for use of Alaska's human resources by pledging to provide local employment and contracting opportunities and to encourage its contractors to do the same (Proposed Plan Mitigation Measure Analysis A.7.a).

B. Conservation of Natural Resources

The Division has considered whether the Plan promotes conservation of all natural resources, including all or part of an oil or gas Plan, field, or area (11 AAC 83.303(a)(1)). Conservation, in this context, means maximizing the efficient recovery of oil and gas and minimizing the adverse impacts on the surface and other resources (11 AAC 83.395(1)). Exploration within a unit is intended to provide more efficient exploration than on the individual leases that make up the unit, and this Plan considers the exploration of the Unit, not single leases. Efficient exploration creates less impact on the land and promotes maximum use of all natural resources in the area, consistent with the public interest.

There are several ways in which the Plan seeks to minimize adverse impacts on natural resources. This Plan incorporates the mitigation measures set forth in the North Slope Areawide Oil and Gas Lease Sale Final Finding. These include measures to protect habitat, fish, and wildlife; protect subsistence resources; and limit the impact from fuel and hazardous substances (North Slope Areawide Final Findings at Sections 9-3 – 9-5). The Plan also includes operating procedures to prevent or minimize adverse effects, including effects on the environment, wildlife, and subsistence resources discussed in Section IV: L.

C. Prevention of Economic and Physical Waste

The Division has considered whether the Plan promotes the prevention of economic and physical waste (11 AAC 83.303(a)(2)). Issues of economic and physical waste are carefully considered during Unitization and annually thereafter in the POE and POD; this Plan conforms to the current PKU POE on file with the Division's Units Section.

D. Protection of All Parties of Interest, Including the State

The Division has considered whether the Plan provides for the protection of all parties of interest, including the State (11 AAC 83.303(a)(3)). The parties of interest to a unit plan are the unit operator and working interest owners. The State has an economic interest in the oil and gas resources because it receives royalties from production. It is further in the State's best interest to encourage assessment of oil and gas resources, recognize the costs of exploring in varied geographic regions, and minimize the adverse impact of exploration, development, production, and transportation activity (AS 38.05.180(a)(2)).

Without approval of a plan, Armstrong cannot explore PKU, and the State cannot recover royalties from that exploration. The Plan thus protects the unit operators, working interest owners' and the State's interests in exploring the resources.

E. Environmental Costs and Benefits

The Division has considered the environmental costs and benefits of unitized exploration outlined in this Plan and through the POE (11 AAC 83.303(b)(1)); this Plan conforms to the current POE on file with the Division's Units Section.

The North Slope Mitigation Measures, incorporated into this Plan by amendment, include measures to protect habitat, fish, and wildlife (North Slope Areawide Final Finding at Sections 9-3 – 9-5). Additional operating procedures designed to minimize adverse effects on other natural resources and other uses of the unit area and adjacent areas are discussed in Section IV: L of this decision.

F. Geological and Engineering Characteristics of Hydrocarbons

DNR previously considered the geological and engineering characteristics of a potential hydrocarbon accumulation or reservoir when it approved the unit agreement (11 AAC 83.303(b)(2)); this Plan conforms to the current POE on file with the Division's Units Section.

G. Prior Exploration Activities

The Division has considered prior exploration activities in the Plan area pursuant to 11 AAC 83.303(b)(3). Exploration drilling in the Pikka 2 project area has been limited. In 2016, Armstrong withdrew the Pikka 1 exploration well project. In early 2017, Armstrong drilled Horseshoe #1, approximately 17.3 miles southwest of Pikka 2 drill site.

H. Plan of Exploration

The Division has considered the plans for development set forth in and approved by DNR in the POE (11 AAC 83.303(b)(4)). The current POE approved on November 6, 2017, approves Armstrong to carry out operations in the proposed Plan.

I. Economic Costs and Benefits to the State

The Division has considered the economic costs and benefits to the State (11 AAC 83.303(b)(5)). Without approval of a plan, Armstrong will be unable to proceed with developing PKU, which will cost the State the economic benefit of the royalties, as well as other economic benefits that flow from production.

J. Other Relevant Factors to Protect the Public Interest

The Division has considered other relevant factors necessary or advisable to protect the public interest (11 AAC 83.303(b)(6)). These other factors consist of the mitigation measures (Section IV: L) that will apply to this Plan and the existence of other approvals by Agencies (Section IV).

VII. CONSULTATION WITH OTHER GOVERNMENT ENTITIES

In reviewing the proposed Plan, the Division considered the fact that Armstrong may require approvals from Agencies for other elements of its project. Although mentioned in the Plan and above, these aspects of the project are not approved by this decision and the Division offers no opinion on whether an agency should or should not approve these activities.

In addition to considering the approvals required by Agencies as they relate to this decision, the Division provided an agency review and comment opportunity for the activities proposed for authorization under this decision. The following government entities were notified on October 4, 2017, for comment on the Plan: U.S. Army Corps of Engineers (USACE), NSB, Kuukpik Corporation, Arctic Slope Regional Corporation, ADF&G, ADEC, and DNR DMLW and DOG. The comment deadline was 4:30 pm Alaska time on October 18, 2017. No comments were received.

VIII. PUBLIC NOTICE

Public notice of the Plan and opportunity to comment, per AS 38.05.035, was published in the Alaska Dispatch News on October 23, 2017, and the Arctic Sounder on October 26, 2017, with a deadline for comments of November 23, 2017, at 4:30 pm Alaska time. Additionally, a copy of the notice was posted on State of Alaska and DOG web sites and faxes of the public notice were sent to the Nuiqsut, Deadhorse, and Barrow post offices. Timely comment was received by the Division. Public comment and the Division's and applicant's responses are summarized in Appendix B.

IX. CONDITIONS OF APPROVAL

Having considered the proposed project, the Division approves the Plan as amended and modified by this decision and subject to the below conditions of approval.

To protect the State's interest, the Division finds that it is necessary to amend the Plan to incorporate the following Conditions of Approval.

a) The applicant shall defend, indemnify and hold the State of Alaska harmless from and against any and all claims, damages, suits, losses, liabilities and expenses for injury to or death of persons and damage to or loss of property arising out of or in connection with

the entry on and use of State lands authorized under this approval by the applicant, its contractors, subcontractors and their employees.

b) The applicant shall inform and ensure compliance with any and all conditions of this approval by its employees, agents and contractors, including subcontractors at any level.

c) Unless pre-authorized by a general permit, amendments and modifications to this approval require advance notice and must be approved in writing by the DNR.

d) The Commissioner of the DNR may require that an authorized representative be onsite during any operations conducted under this approval. This stipulation is required to ensure that DOG and DMLW meet their statutory responsibilities for monitoring activities taking place on State-owned lands.

e) A status report for the activities conducted under this approval must be filed with this office on May 1 and November 1 each year, from the date this approval is issued and until a final completion report is filed with the Division. If a lessee requests an assignment, a status report must also be submitted during the assignment process. Failure to file in a timely manner may result in revocation of this approval.
    a. Each status report shall include a statement describing and map(s) depicting all operations actually conducted on the leased area as of the date the report is prepared, which includes the location, design, and completion status of well sites, material sites, water supplies, solid waste sites, buildings, roads, utilities, airstrips, and all other facilities and equipment installed.
    b. Upon completion of operations, the applicant will submit a completion report that will include all information required of a status report described in (a) above as well as a statement indicating the date of operations completion, any noncompliance with the terms of this plan approval of which a reasonable lessee would have knowledge of, clean-up activities conducted, the method of debris disposal, and a narrative description of known incidents of surface damage.

f) Notification. The applicant shall notify the DNR of all spills that must be reported under 18 AAC 75.300 under the timelines established therein. All fires and explosions must be reported to DNR immediately. The DNR 24-hour spill report number is (907) 451-2678; the fax number is (907) 451-2751. The ADEC oil spill report number is (800) 478-9300. DNR and ADEC shall be supplied with all follow-up incident reports.

g) A certified As-Built survey of the improvement shall be provided within one year of placement of the improvement. This As-Built must be submitted in both electronic and physical format.

X. FINDINGS AND DECISION

Having considered the proposed project and based on the foregoing discussion and consideration of issues, the Division makes the following findings.

1. The Plan provides sufficient information, based on reasonably available data, for the Division to determine the surface use requirements and impacts directly associated with the proposed operations.
2. The Plan includes statements, maps, or drawings setting forth the sequence and schedule of operations, projected use requirements, description of operating procedures, and a plan of rehabilitation designed to prevent or minimize adverse effects.

3. To protect the State's interest and mitigate potential adverse social and environmental effects associated with the Plan, the Division finds it necessary to amend the Plan to incorporate the mitigation measures set forth in the North Slope Areawide Oil and Gas Lease Sale Final Finding.
4. All oil and gas activities conducted under oil and gas leases are subject to numerous local, state and federal laws are regulations with which Armstrong is expected to comply.
5. The people of Alaska have an interest in developing the state's oil and gas resources and maximizing the economic and physical recovery of those resources (AS 38.05.180(a)).
6. Alaska's economy depends heavily on revenues related to oil and gas production and government spending resulting from those revenues. The related revenue sources include bonus payments, rentals, royalties, production taxes, income taxes, and oil and gas property taxes.
7. The potential benefits of approving this Plan outweigh the possible adverse effects, which have been minimized through imposition of mitigation measures, conditions of approval, and project specific stipulations, and thus approval of this Plan is in the State's best interest.

Based upon the Plan, supporting information provided by the applicant and the Division's review, determination of applicable statutes and regulations, consultation with other agencies, relevant entities and individuals, public comment, and the above findings related to that Plan, the Division hereby approves the Plan.

Sincerely,

Graham Smith
Permitting Section Manager
Division of Oil and Gas

1/24/2018
Date

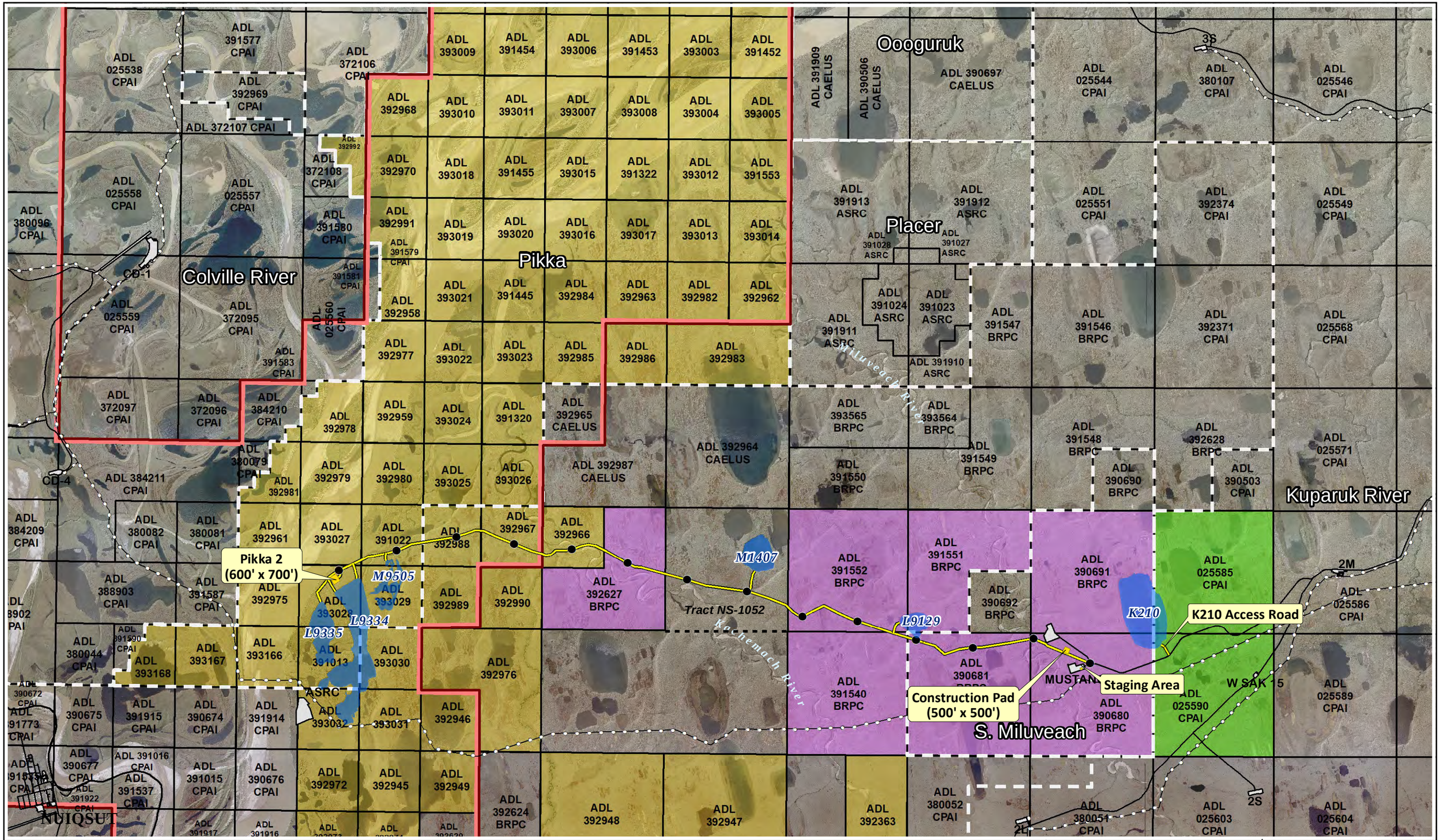
Appeal

An eligible person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of issuance of this decision, as defined in 11 AAC 02.040(c) and (d), and may be mailed or delivered to the Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; or sent by electronic mail to dnr.appeals@alaska.gov. This decision takes effect immediately. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

Attachments: Appendix A: Figures 1-4
Appendix B: Public Comments

ecc: DOG: Graham Smith, Nathaniel Emery, Conor Williamson, Paul Blanche, Jeanne Frazier, and SPCO Records
DMLW: Becky Baird, Henry Brooks, Melissa Head, Kimberley Maher, and Sean Willison
ADF&G: Jack Winters
ADEC: dec.water.oilandgas@alaska.gov
Borough: Jason Bergerson, John Adams, Josie Kaleak, and Matt C. Dunn
Other: regpagemaster@usace.army.mil, inukapigak@kuukpik.com, majorinor@live.com, bcboyd@bcfaklaw.com, pmunson@bcfaklaw.com, timm@asrc.com, and dorcastukle@yahoo.com

APPENDIX A

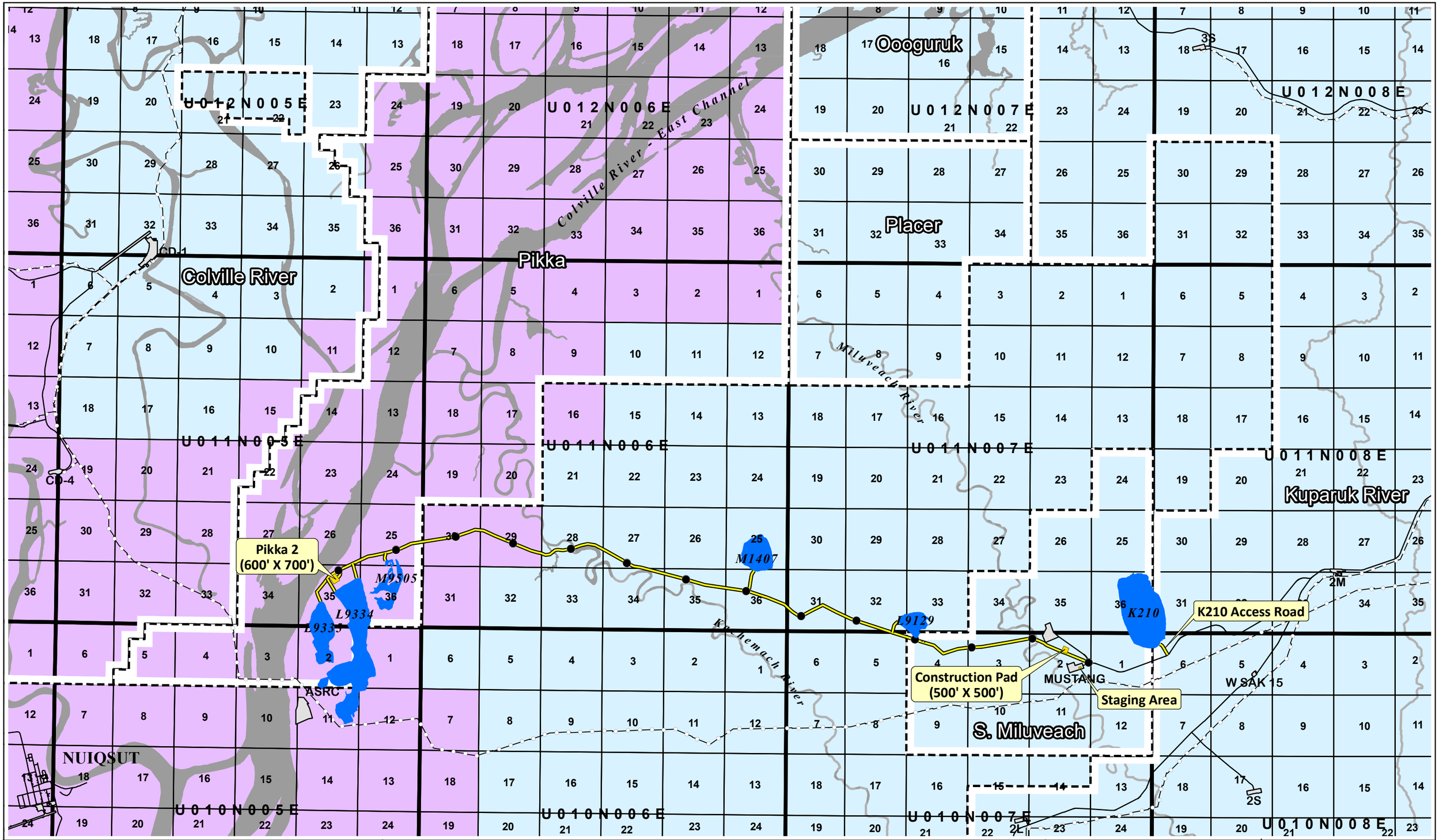


ARMSTRONG ENERGY LLC			
ALASKA NORTH SLOPE			
2017-2018 Exploration Pikka 2			
By: JB	DATE: 9/15/2017	REV: 3.1	FIGURE 1

ICE ROAD ROUTE (As-Staked)
ICE PADS (As-Staked)
MILEPOST
EXISTING GRAVEL PAD
EXISTING GRAVEL ROAD
EXISTING PIPELINES
PRODUCTION UNIT
KUUKPIK BOUNDARY
ARMSTRONG LEASES
NS LEASES
LAKES TO USE

0 0.250.5 1 Miles
0 0.5 1 2 Kilometers
Coordinate System: NAD 1983 StatePlane Alaska 4 FIPS 5004 Feet

POO_Fig1_Leases



ARMSTRONG Energy, LLC	ARMSTRONG ENERGY LLC		
	2017-2018 EXPLORATION CAMPAIGN		
	PIKKA 2 OVERVIEW - LAND OWNERSHIP		
	By: JB	DATE: 9/12/2017	REV: 3.0	FIGURE 2

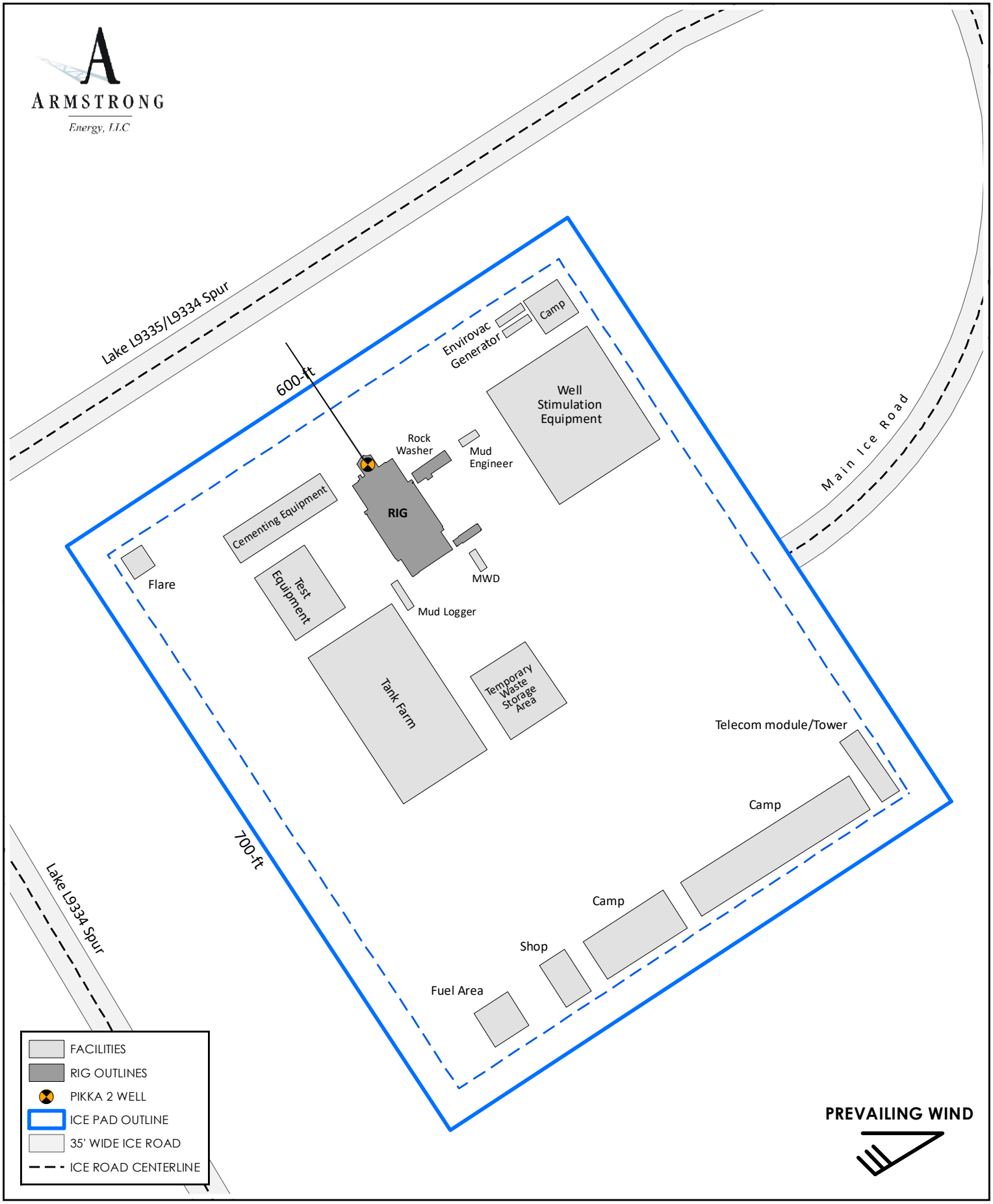
- ICE ROAD ROUTE (As-Staked)
- ICE PADS (As-Staked)
- MILEPOST
- EXISTING GRAVEL PAD
- EXISTING GRAVEL ROAD
- EXISTING PIPELINES
- PRODUCTION UNIT
- MTR BOUNDARY
- SECTION BOUNDARY
- LAKES TO USE
- STATE SURFACE AND SUBSURFACE LANDS
- KUUKPIK SURFACE - STATE/ASRC SUBSURFACE LANDS

0 0.250.5 1 Miles

0 0.5 1 2 Kilometers

Coordinate System: NAD 1983 StatePlane Alaska 4 FIPS 5004 Feet

SurfaceOwnership



CS: NAD 1983 StatePlane
Alaska 4 FIPS 5004 Feet

File Name: 17-18_OS-PE-P-M_Pikka2_Layout

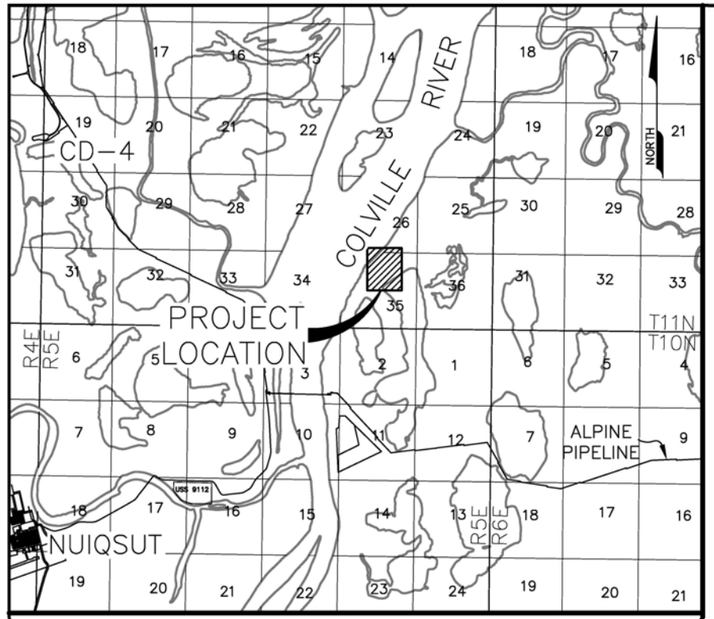
Created on: 9/21/2017. Created by: JB
Revision: 3.0

ARMSTRONG ENERGY LLC.

2017-2018 EXPLORATION CAMPAIGN

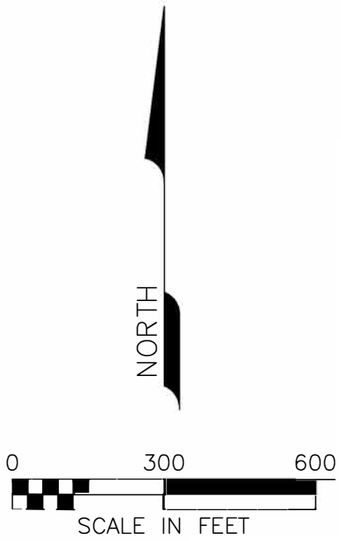
FIGURE 3: Pikka 2 Layout Plan

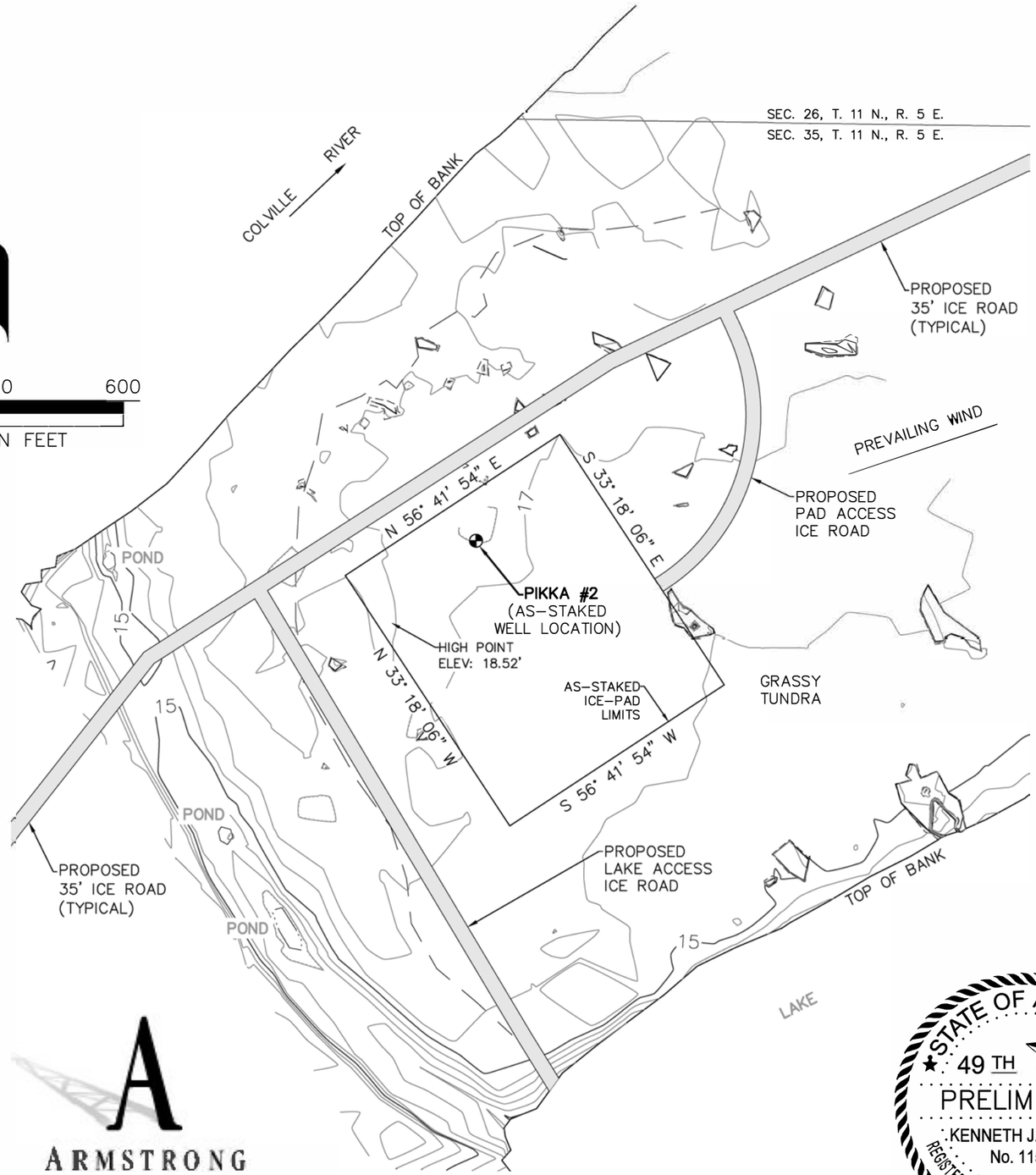
0 25 50 100 Feet
0 5 10 20 Meters



VICINITY MAP

Scale: 1" = 2 Miles





NOTES

1. DATE OF FIELD SURVEY 7-27-2017 TO 7-30-2017.
2. CONTOUR INTERVAL 1 FOOT.
3. BASIS OF COORDINATES PER OPUS SOLUTION OF STATIC GPS OBSERVATIONS 7-25-2016 AND 7-26-2016.
4. LOCATED WITHIN PROTRACTED SEC. 35, T.11N., R.5E., UMIAT MERIDIAN.

   2,364' FROM EAST SECTION LINE, SEC. 35
   986' FROM NORTH SECTION LINE, SEC. 35

AS-STAKED PIKKA #2 LOCATION
NAD-83 ZONE 4 (VERTICAL = NAVD88 GEOID 12BAK)
N 5948265.05'
E 1541887.60'
EL 16.98'

NAD-83
N 70°16'06.600"
W 150°47'48.501"

NAD-27
N 5948517.04'
E 401853.84'

N 70°16'07.769"
W 150°47'37.272"

ARMSTRONG
Oil & Gas, Inc.

STATE OF ALASKA
49 TH
PRELIMINARY
KENNETH J. PINARD
No. 11545
REGISTERED PROFESSIONAL LAND SURVEYOR

UMIAQ Design & Municipal Services, LLC / AECL1316

UMIAQ
Design & Municipal Services, LLC
6700 Arctic Spur Road · Anchorage, AK 99518 · (907) 677-8220

PIKKA #2 EXPLORATORY WELL
SITE TOPOGRAPHIC SURVEY & AS-STAKED WELL LOCATION
NORTH SLOPE, ALASKA

DRAWN BY:	KVD
CHKD BY:	KJP
DATE:	08-09-17
JOB No:	80159.17
SCALE:	1"=300'

SHEET: 1 OF 1

Figure 4

APPENDIX B Public Comments

The Division received a timely comment during the public notice period from Ms. Dorcas Tukle, a Kuukpik Corporation shareholder. One email was submitted from Ms. Tukle. The Division has considered the comment and provides the following response.

Comment: "I am a resident and shareholder of Kuukpik Corp., land owner of Nuiqsut, Alaska, near the Nanashuk project. I would like to voice that I am deeply concerned and oppose this project as it affects every aspect of my survival and the generations to come. It will also affect the air I breathe, the water I drink and the animals I eat to survive and live a healthy lifestyle for my child and future grandchildren to come. I ask that you not allow this project to go forward until all concerns are addressed by me and my community. My Corporation board of directors did not consult or get input from shareholders on this project."

Applicant Response to Comment: Armstrong is committed to conducting its field operations in compliance with all applicable environmental laws, regulations and permits which are established to ensure appropriate protections of human and natural environment are in place. No long-term effects associated with the Pikka 2 Exploration Project are expected, as all operations will be placed on temporary seasonal ice pads and accessed by temporary ice roads. All equipment will be removed from the project site at the completion of drilling operations in April/May, prior to spring break-up. The Nanushuk Project (that is referenced in the comment) is currently going through an Environmental Impact Statement process to review all potential effects of the project. The applicant will also be working with the community to talk more about the project. The approval of this Plan of Operations for the Pikka 2 Exploration Project does not authorize the development of the Nanushuk Project, for which a separate Plan of Operations must be approved by DOG (the Division).

Division Response to Comment: Comment and response noted. The Division agrees with the applicant's response that Pikka 2 operations will be temporary in nature and completed prior to spring break-up. As such, no long-term effects are expected from Pikka 2. Ms. Tukle's comment references the Nanushuk Project, which is currently being evaluated by the USACE through an Environmental Impact Statement. Based on this information, it appears that the comment was submitted to the incorrect agency.