Project Overview

The Pebble Limited Partnership (PLP) plans to propose development of the Pebble copper-gold-molybdenum porphyry deposit as a surface mine in southwest Alaska. The Proposed Pebble Project (Project) is located in southwest Alaska near Iliamna Lake, primarily within the Lake and Peninsula Borough with a portion of the supporting infrastructure in the Kenai Peninsula Borough. The Project consists of four primary project elements: the mine site, the Amakdedori Port, the transportation corridor, and the natural gas pipeline. Additional information for each of the primary project elements is provided below.

Primary Project Elements

Mine Site

The deposit is located under rolling, permafrost-free terrain in the Iliamna region of southwest Alaska, approximately 200 miles southwest of Anchorage and 60 miles west of Cook Inlet. The closest communities are the villages of Iliamna, Newhalen, and Nondalton, each approximately 17 miles from the deposit. The Project site is not currently served by roads or railroads, nor is there a connection to existing utility infrastructure. The only access is by helicopter or by snow machine during winter conditions.

The Project is proposed to be a conventional drill, blast, truck, and shovel operation with a mining rate of up to 90 million tons per year. Approximately 1,100 million tons of mineralized rock and 100 million tons of waste rock would be mined over the life of the Project. The mineralized material would be crushed and sent to a coarse ore stockpile to feed the process plant. The process plant would include grinding and flotation steps, with a processing rate of up to 58 million tons per year, to produce 600,000 tons of copper-gold concentrate and 15,000 tons of molybdenum concentrate annually.

The fully developed mine site would include an open pit, tailings storage facility (TSF), power plants, water treatment plants, and milling/processing facilities as well as supporting infrastructure. All non-potentially acid generating (NAG) waste rock would be used in the construction of infrastructure needed to support the mine. In addition to waste rock, a total of three quarries (e.g., material sites) would also be needed.

Pyritic waste rock would be stored in the Low Grade Ore (LGO) Stockpile area, which is a High Density Polyethylene (HDPE)-lined impoundment until closure, when it would be back-hauled into the open pit. Bulk tailings would be placed in the bulk tailings cell in the TSF, while pyritic tailings material would be placed in the HDPE-lined pyritic tailings storage cell in the TSF. Soils would be stored in overburden stockpile areas located to the southwest of the pit and north of the main embankment of the tailings storage facility and would be used for reclamation during mine closure.

Amakdedori Port

The proposed port site is on the shore of Kamishak Bay near Amakdedori Creek. It would support the movement of equipment and modules for project construction, as well as serve as the long-term logistics hub for the Project.

The port site would include shore-based facilities to receive and store shipping containers and fuel, as well as power generation equipment, a natural gas compression station for the natural gas pipeline,

maintenance facilities, employee accommodations, and offices. A temporary airstrip would be constructed adjacent to the port site for crews to fly in and out during construction.

The waterside improvements consist of an earthen access causeway extending out to a marine dock located in 15 feet of natural water depth. On one side would be a roll on/roll off barge access berth, with a separate berth on the opposite side for Handysize bulk carriers with a 50-foot-deep dredged channel and turning basin at the berth. The dredged channel would follow a navigation route approximately 4.2 miles to reach naturally deep water. During operations up to 25 Handysize ships would be required annually for the transport of concentrate and up to 25 marine line-haul barge loads of supplies would be required annually.

All dredge materials proposed to be disposed of on an upland area behind the marine terminal with an estimated volume of 10,000,000 cubic yards. Maintenance dredging of the channel would also be required and capacity for an additional 10,000,000 cubic yards of material from the maintenance dredging is included in the area.

Transportation Corridor

Access Roads

The proposed access road would have a 30-foot-wide top width, which would enable two-way traffic and support development and operational activities. The natural gas pipeline would be located adjacent to the road bed along the transportation corridor. The access road consists of four segments:

- Amakdedori Port to South Ferry Terminal. This segment would begin at the marine terminal north of where Amakdedori Creek meets Cook Inlet and extends to the northwest to the South Ferry Terminal at Iliamna Lake west of Kokhanok.
- Kokhanok Airport Spur. This segment would connect Kokhanok Airport with the port access road.
- North Ferry Terminal to mine site. This segment would begin at the North Ferry Terminal at Iliamna Lake and extends north to the mine site.
- Iliamna Airport Spur. This segment would extend from Iliamna to the northwest and connects with the mine access road, providing access to the Iliamna airport.

Road traffic during construction is expected to include modules up to 2000 tons. During operations the transport of supplies and concentrate would require up to 35 truck round trips per day.

Drainage and Water Crossing Structures

Stream crossings have been categorized based on stream width and fish presence, to simplify stream crossing selection around a series of standardized conceptual culvert design categories. Larger streams and rivers fall under a bridge category for which site-specific designs have been developed. Categorization of streams and design of stream crossings may change based on future field studies, particularly the verification of fish presence.

Bridges

Bridges would be constructed to cross waterways with a width at OHW of 16 feet or greater.

Ferry Terminals

The Project incorporates an all-season ice-breaking ferry to run across Iliamna Lake and connect the mine and port sites by roads to ferry terminals on each shore of the lake. The ferry would complete one round trip across the lake per day.

The north terminal site is located west of the village of Iliamna, and the south terminal site is west of the village of Kokhanok. Each ferry terminal requires facilities for handling containers, a maintenance shop, storm water treatment area, generators for providing local power, an administration office, and a ferry landing area. The south ferry terminal would also contain a ferry construction and laydown area that would be used to support the construction and assembly of the ice-breaking ferry.

Natural Gas Pipeline

Natural gas is proposed to be the primary energy source for the project. The natural gas pipeline would be designed to provide a gross flow rate of 50 million standard cubic feet per day. The steel pipeline would be designed to meet all required codes. It would be 10 inches in diameter except where it crosses the bed of Cook Inlet, when the diameter would be increased to 12 inches. A fiber optic cable would be ploughed in, or buried in a shallow trench, adjacent to the pipeline.

A gas pipeline metering station would be constructed at the connection to existing natural gas pipeline infrastructure near Happy Valley on the Kenai Peninsula. The pipeline would then head south, paralleling the Sterling Highway for 9 miles to a compressor station located on State of Alaska lands. Horizontal directional drilling would be used to install pipe segments from the compressor station out into Cook Inlet waters that are deep enough to avoid navigation hazards. The pipeline then heads southwest across Cook Inlet for 60 miles, before turning west for 35 miles to landfall at the Amakdedori marine terminal. A second compressor station and offtake point is located at the port site. The pipeline then follows the transportation corridor from the port to the mine site, including crossing Iliamna Lake on the lake bed. The pipeline would be routed under stream crossings or attached to bridge crossings s appropriate along the road alignment.