Rail Port and Mining Statement of Qualifications

Keith Gilbert | Proven Ground Consulting

I bring hands-on experience developing rail yards, mine infrastructure, rail loadout facilities, and port logistics systems. My work has included direct coordination with Union Pacific, procurement of rail equipment, startup of a short line railroad, and development of export arrangements connecting a southern Utah iron ore mine with West Coast ports.

The experience summarized below was gained throughout my career and forms part of the qualifications I bring to clients through Proven Ground Consulting.

Rail Yard Construction and Union Pacific Coordination

Throughout my career, I have built three rail yards connecting to the Union Pacific railroad network, with a combined track length exceeding five miles. I worked directly with Union Pacific during construction and coordinated subballast placement and subcontractors supplying and installing rail and ballast for the mainline and secondary yard tracks.

This experience provides a practical understanding of the coordination required between site construction, railroad interfaces, track subcontractors, and terminal operations.

Iron Ore Mine Development and Processing Infrastructure

I was responsible for developing a major iron ore mining project in southern Utah from the ground up. The work included demolition and removal of equipment and infrastructure remaining from the early 1960s, establishment of new haulage routes, implementation of updated mining practices, and construction of new mine infrastructure.

My responsibilities included development work associated with a semi-autogenous grinding (SAG) and ball mill facility and an HBF filtration building. These facilities represented construction costs exceeding $200 million. The project required coordination of mine development, processing infrastructure, material handling, and outbound transportation.

Rail Loadout Development and Performance

I was tasked with developing the loadout concept and overseeing construction of a rail loading facility capable of loading a unit train in less than eight hours. After evaluating the existing system, we removed the old conveyors from the underground draw tunnels and replaced them with a 60-inch overland conveyor supplied by a belt feeder.

The conveyor discharged onto a 72-inch-wide, 250-foot-long stacker equipped with dual 150-horsepower drives. The stacker supplied a new surge hopper with approximately 300 tons of storage capacity, equivalent to roughly three railcar loads.

We installed rail scales to control loading against the project's Union Pacific loading requirements, which called for a tolerance of plus or minus 5 percent. In operation, loading variation typically remained below 1 percent of target capacity.

The facility could supply material at approximately 3,000 tons per hour and load a unit train in less than five hours, exceeding the original loading-time objective. The remaining constraint was the rate at which railcars could be moved beneath the loading tipple.

Port Evaluation and Export Logistics

I was responsible for identifying dry bulk port facilities capable of supporting an iron ore export program requiring approximately 2 million tons of product per year. The evaluation addressed material handling capability, annual throughput, vessel loading, and water depth for Panamax-size vessels.

I visited and researched port facilities along the West Coast, from Washington to Guaymas, Mexico. Limited iron ore handling capacity and vessel draft restrictions created substantial challenges in finding a workable export route.

I developed a two-port approach using the Port of Stockton and the Levin Richmond Terminal in the San Francisco Bay area. Stockton provided the required material handling capacity, while Richmond allowed vessels to receive additional cargo after leaving Stockton's draft-constrained waterway.

Under this approach, vessels were initially loaded with approximately 50,000 to 55,000 tons of ore at Stockton and departed with favorable high-tide conditions. They were then topped off at Richmond to final cargoes of approximately 80,000 to 100,000 tons, depending on the vessel. This arrangement helped overcome the port constraints and enabled the mine's export operation to move forward.

Railcar Procurement and Railroad Contract Coordination

I coordinated Union Pacific service with the mine and port facilities and negotiated Union Pacific contracts supporting the operation. Once shipments began, I remained responsible for maintaining coordination among the railroad, ports, and mine logistics.

The sticky nature of the iron ore required railcars with rapid-discharge bottom gates. The cars also needed to be compatible with the rotary dumper used at Stockton. I searched nationally and worked with the rail equipment financing provider to locate and secure a fleet of 500 railcars meeting both requirements. This fleet supported shipments to both ports at the required production rate.

Short Line Railroad Startup and Fleet Support

When the existing short line contractor could no longer handle the mine's volume, I was tasked with establishing a short line railroad operation. This included responsibility for approximately 14 miles of track requiring maintenance, securing personnel to maintain the railcar fleet, and obtaining four locomotives to support service.

I worked closely with the equipment financing provider to secure the locomotives and establish the equipment resources needed to support the mine's rail transportation requirements.

Long Beach Port Opportunity and Continuing Operations

I subsequently identified an opportunity with SA Recycling at the Port of Long Beach and introduced its representatives to the president of CML Metals, the mine owner. This connection provided access to a closer port and deeper water, reducing the rail haul distance by approximately half.

The operation continued for years. During that time, I developed strong working relationships with Union Pacific, multiple port facilities, equipment providers, and other logistics organizations involved in sustaining the mine's transportation and export program.

Application to Consulting Assignments

Through Proven Ground Consulting, I bring this experience to assignments involving rail terminals, industrial development, mine infrastructure, and dry bulk transportation. My background supports practical reviews of constructability, material handling, loading capacity, equipment selection, railroad coordination, port suitability, and operational bottlenecks.

For economic development organizations, owners, and project teams, I offer experience evaluating how a proposed terminal will function as part of a complete transportation system, from site development and rail loading through port delivery and vessel shipment.