

HP Steam Letdown Station PV Redundancy

The high-pressure steam letdown station pressure valves (PVs) on parallel lines at a Client's facility were built with no redundancy. A failure of either PV (or both) would interrupt steam flow and cause production to immediately fall by 50% to 100%. Rally completed a scoping study to evaluate various ways to add redundancy to the existing PVs, then delivered a multi-discipline Concept Selection Report.



HP Steam Letdown Station

PV Redundancy

Alberta

Oil Sands & SAGD

\$2.5M TIC



STRATEGY

Rally began with an initial screening exercise of the Client's conceptual ideas, to quickly short-list and assess the most viable options.

DELIVERABLES

A heavy focus was initially placed on the process discipline to develop a process design basis. This entailed complete hydraulic calculations for each of the options and development of decision analysis criteria in accordance with the Client's needs.

The other engineering disciplines also provided insights to each option – including equipment placement options, piping stress analysis, pipe rack capacity checks, budget quotations for additional valves, and electrical load capacity checks. Direct capital costs were estimated for each of the selected options.