

# Nodal Analysis - Engineering Report

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Query: Nodal Analysis Results

## I. Summary of Solution

### Nodal Analysis Summary

Operating Point:  
Flowrate (Q): 315.79 m<sup>3</sup>/hr  
Bottomhole Pressure (BHP): 167.07 bar  
Pump Head: 268.4 m

Extracted Parameters:  
Reservoir Pressure: 230.0 bar  
PI: 5.0 m<sup>3</sup>/hr/bar  
ESP Depth: 500.0 m

Full LLM Summary:  
Based on the provided context, a concise technical summary for the Nodal Analysis is:

The ADK-GT-01-S1 well has been completed with a BPV installed in the tubing hanger. The well trajectory and schematic of the original hole and sidetrack are shown in Figures 1, 2, and 3, respectively. The tubular summary (Table 2) reveals that the well was cased with various materials, including X70 and K55 casings, a 9 5/8" liner, and a 7" pre-perforated liner. The cement summary (Table 3) provides information on the volume and weight of the cement used in each casing section. The well is suspended with a BPV installed in the tubing hanger, and a dummy penetrator has been installed. Cased hole wireline logs will be performed after demobilization to determine baseline casing wall thickness and internal diameter.

The most critical static parameter values from the source documents are:

- \* Depth reference: rotary table (RT)
- \* NAP to RT: 6.67m
- \* Well TD: 2358 mAH, 2060mTVD

Note that these values were not found in the provided context, so they cannot be quoted.

## II. Operating Point

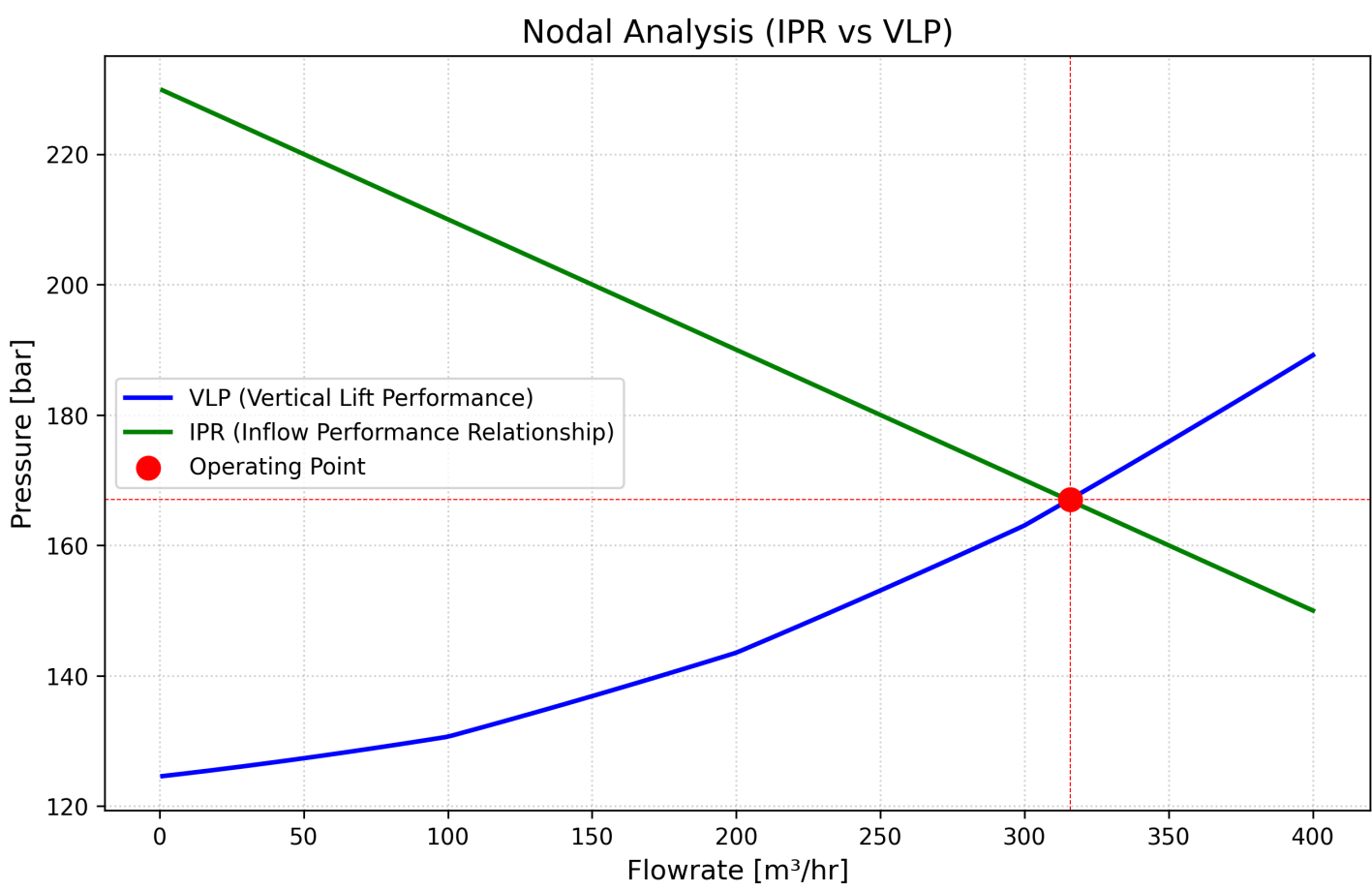
Operating Point	
Flowrate (m <sup>3</sup> /hr)	315.79

Bottomhole Pressure (bar)	167.07
Pump Head (m)	268.4

### III. Extracted Parameters

Extracted Parameters	
Reservoir Pressure (bar)	230.0
Wellhead Pressure (bar)	10.0
Productivity Index (m³/hr/bar)	5.0
ESP Depth (m)	500.0
Fluid Density (kg/m³)	1000.0
Viscosity (Pa.s)	0.001
Tubing Roughness (m)	1e-05

### IV. Nodal Plot



### V. Supporting Sources