Case-1

Force F1 at PSV along (-Z) direction

RV019
3790
3740
3730
3800

PS01080406

3820

Force F2 at mid node of elbow along (+Z) direction

R01080409B
8720
S01080409B
3830

Force F3 at mid node of elbow along (-X) direction

Force F5 at mid node of elbow along (+X) direction

3850

3840
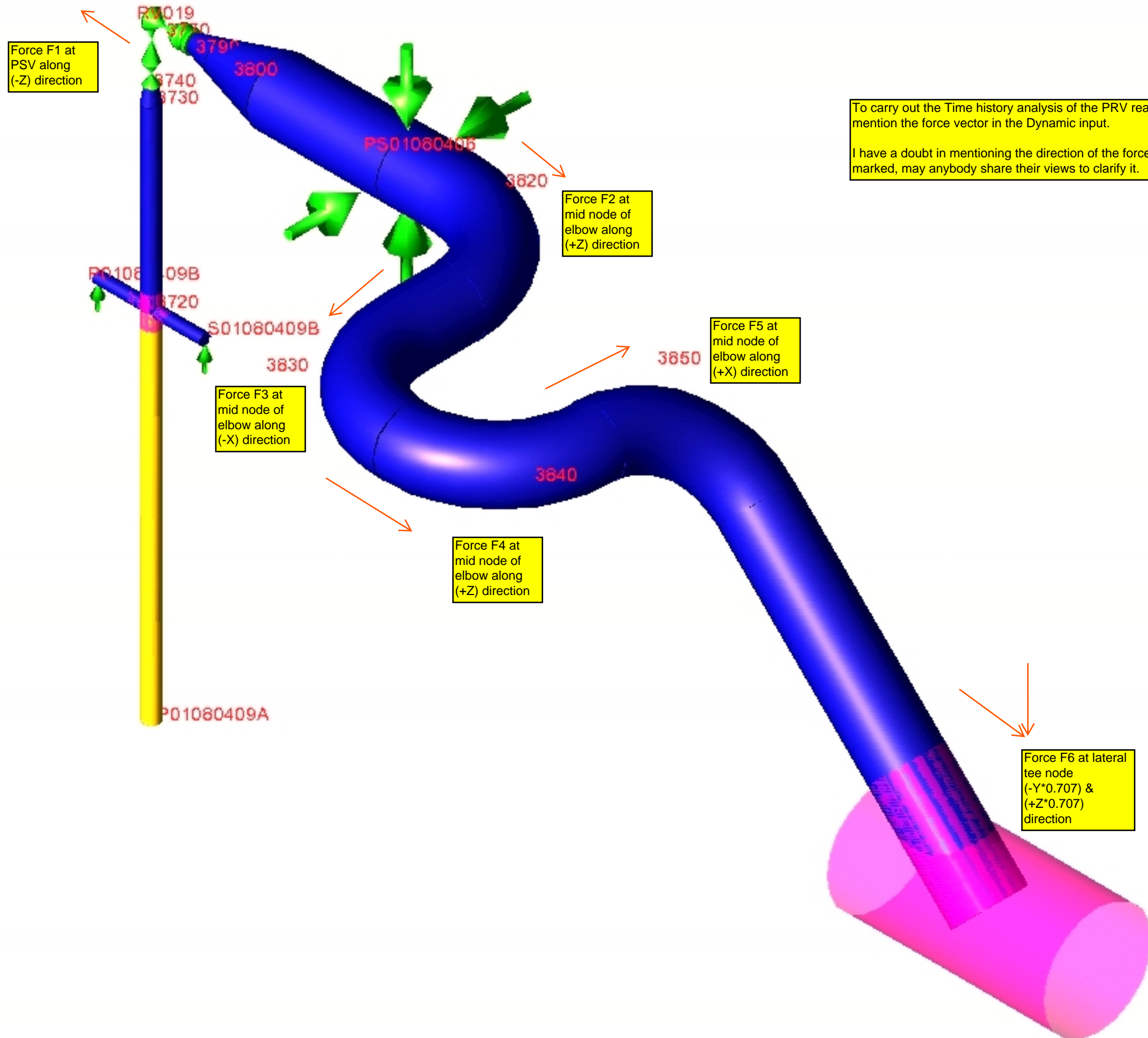
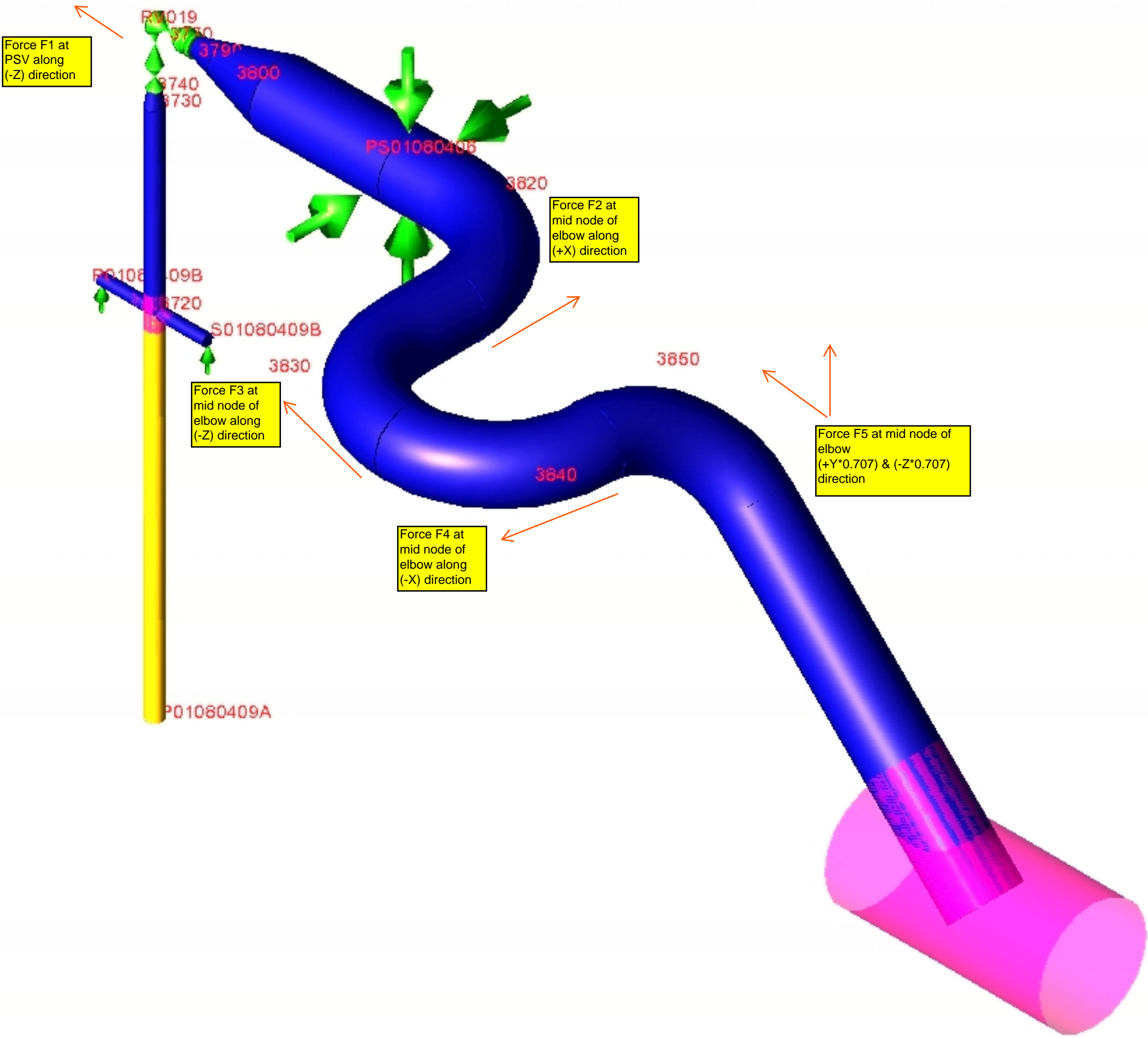Force F4 at mid node of elbow along (+Z) direction

P01080409A

To carry out the Time history analysis of the PRV reaction forces, i need to mention the force vector in the Dynamic input.

I have a doubt in mentioning the direction of the force, there are three cases i marked, may anybody share their views to clarify it.

Force F6 at lateral tee node (-Y*0.707) & (+Z*0.707) direction

Case-2

Force F1 at PSV along (-Z) direction

Force F2 at mid node of elbow along (+X) direction

Force F3 at mid node of elbow along (-Z) direction

Force F4 at mid node of elbow along (-X) direction

Force F5 at mid node of elbow (+Y*0.707) & (-Z*0.707) direction

R3019
3780
3790
3740
3730
3800
3820
PS01080406
R01080409B
3720
S01080409B
3830
3840
3850
P01080409A

Case-3:
The only difference between Case1 & 3 is the Force F1 is removed and the remaining are same.

Force F1 at PSV along (-Z) direction

Force F2 at mid node of elbow along (+Z) direction

Force F3 at mid node of elbow along (-X) direction

Force F4 at mid node of elbow along (+Z) direction

Force F5 at mid node of elbow along (+X) direction

Force F6 at lateral tee node (-Y*0.707) & (+Z*0.707) direction