

CHEMICAL TREATMENT CALCULATION

Product name : CLARIANT (MULTITREAT-5549)

Composition : 500 ppm (GS-COR.560)

Pipeline Data

1. ID of Pipe : 11.94 Inch
2. Length of Pipeline : From MWPBA Up To SWPK
12.6 KM \approx 12600 Meter
- Total Length : 12600 Meter
3. Volume of Pipeline : 909.7379 M3

Total Chemical Req'

$$\begin{aligned} &= 500/1.000.000 \times 909.7379016 \\ &= 0.45487 \text{ M3} \\ &= 454.869 \text{ Liter/line} \approx \mathbf{455 \text{ Liter/line}} \end{aligned}$$

Constant Velocity Over 1M/S Based On GS EP PLR 501

$$\begin{aligned} &= \text{Volume of Pipeline} / \text{Total Length} \\ &= 0.0722 \text{ M3} \\ &= 72.2014 \text{ Liter per Second} \end{aligned}$$

Capacity Water Pump per Minute

$$\begin{aligned} &= 4332.09 \text{ Liter per Minute} \\ &= 4.33209 \text{ M3/Minute} \end{aligned}$$

Total Injection Chemical Rate per 1M3

$$\begin{aligned} &= \text{Total Chemical} / \text{Volume of Pipeline} \\ &= 0.50014 \text{ Liter} \end{aligned}$$

Total Injection Chemical versus Capacity Water Pump per Minute

$$\begin{aligned} &= \text{Total Injection Chemical Rate per 1M3} \times \text{Capacity Water Pump per Minute} \\ &= 2.16667 \text{ Liter/Minute} \end{aligned}$$