


Schedule B

[see regulation 5(5)(b)(viii)]

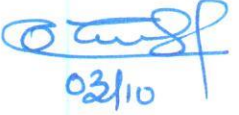
Format for furnishing information regarding determining capacity of Petroleum and Petroleum Products Pipeline

| | | |
|----|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Name of Entity | INDIAN OIL CORPORATION LIMITED |
| 2 | Address and Contact details of Entity | Southern Region Pipelines House of Four Frames, 6/13, Wheatcroft Road, Nungambakkam, Chennai, Tamil Nadu-600 034 |
| 3 | Name of Petroleum and Petroleum Products Pipeline | CHENNAI-TRICHY-MADURAI PIPELINE |
| 4 | Name of Software package used for determining capacity | Pipeline Studio |
| 5 | Approved Flow equation used (mention name of flow equation) | Colebrooke White Equation |
| 6 | Details of injection/entry point and delivery/exit points and sections on the pipeline | Entry Point : Manali Pumping Station Delivery Points: Trichy ToP, Madurai Terminal and Sankari Terminal Sections : Chennai-Asanur, Asanur-Trichy, Trichy-Madurai and Asanur-Sankari Sections |
| 7 | Quality of various products being transported in the pipeline | BS-IV HSD, BS-IV MS and SKO are transported through the pipeline which conform to IS-1460:2005, IS-2796:2008 and IS-1459:1974 respectively with their amendments |
| 8 | Constant and variable parameters used under steady state conditions for determining capacity of the pipeline | Details Enclosed as Annexure-I |
| 9 | Entity agrees to have considered the Technical standards, specifications and safety standards as specified by the Board | Yes/ No |
| 10 | Entity agrees to have considered the relevant provisions of Petroleum and Natural Gas Regulatory Board Regulations | Yes/ No |
| 11 | Quality specifications considered for the purpose of capacity | High Speed Diesel with a specific gravity of 0.85 and kinematic viscosity of 5cSt @ 20°C |


03/10

| | | |
|----|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| | determination | |
| 12 | Capacity of the pipeline under existing operating conditions | 2.3 MMTPA |
| 13 | Maximum achievable Capacity of the pipeline under steady state conditions as determined under section 5 of these regulations | 2.3 MMTPA considering 8000 Hrs of Operation in a Year and without injection of Flow Enhancers |
| 14 | Section wise maximum achievable capacity of the pipeline as determined under section 5 of these regulations | Chennai-Asanur : 2.30 MMTPA Asanur-Trichy : 1.30 MMTPA Trichy-Madurai : 0.85 MMTPA Asanur-Sankari : 1.00 MMTPA |
| | Expected addition of entry points and exit points scheduled in near future | - |
| | | |

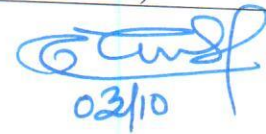
Note: Submit the system flow diagram & hydraulic gradient


03/10

आर रामदास / R Ramdas
महाप्रबंधक (प्र एवं त) / General Manager (Oprns & Maint)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड
Indian Oil Corporation Limited
Southern Region Pipelines
"House of Four Frames" 6/13, Wheatcroft Road,
Nungambakkam, Chennai - 600 034.

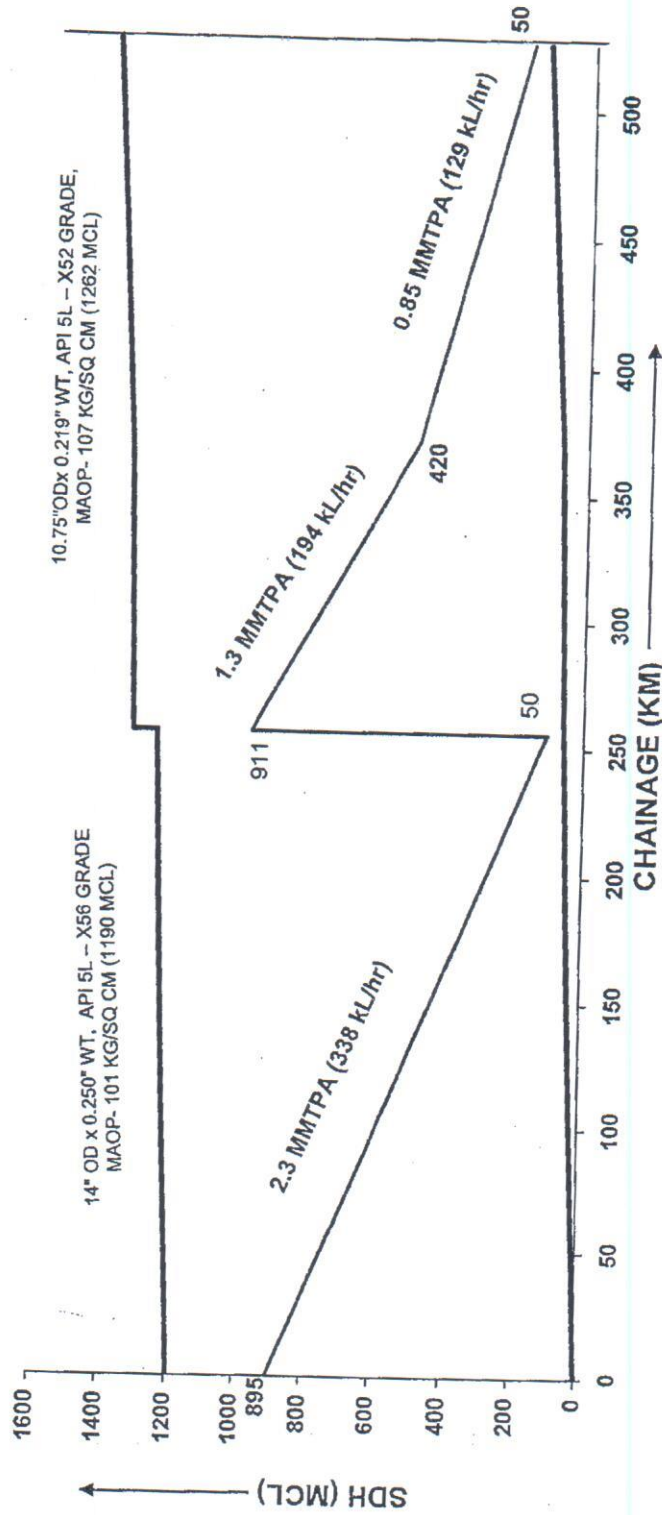
Annexure-I

| CONSTANT PARAMETERS | | |
|---------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| S. No. | Parameter | Details |
| 1 | Outer Diameter | Chennai-Asanur : 14.00" Asanur-Trichy : 10.75" Trichy-Madurai : 10.75" Asanur-Sankari : 12.75" |
| 2 | Length | Chennai-Asanur : 255 KM Asanur-Trichy-Madurai : 271 KM Asanur-Sankari 158 KM |
| 3 | Roughness | 45 microns |
| 4 | Velocity | 2 m/s (Max) |
| 5 | STP | 1.01325 bar, 15°C |
| VARIABLE PARAMETERS | | |
| 1 | Operating Temperature | 30 °C (Summer/ Winter) |
| 2 | Inlet Temperature | 20-45 °C |
| 3 | Outlet Temperature | 20-45 °C |
| 4 | Inlet Pressure/ Outlet Pressure | MAOPs Chennai-Asanur : 101 Kg/cm ² Asanur-Trichy : 107 Kg/cm ² Trichy-Madurai : 107 Kg/cm ² Asanur-Sankari : 104 Kg/cm ² |
| 5 | Source Supply Flow | 338 KI/Hr |
| 6 | Delivery Flow | Trichy : 65 KI/Hr Madurai : 129 KI/Hr Sankari : 144 KI/Hr (Considering 8000 Hrs Operation in a Year and with injection of Flow Enhancers) |
| 7 | Elevation Difference | Details Enclosed as Annexure-II (Hydraulic Gradient) |


 03/10

CHENNAI-ASANUR-TRICHY-MADURAI SECTION

HYDRAULIC GRADIENT (STAGE-I)



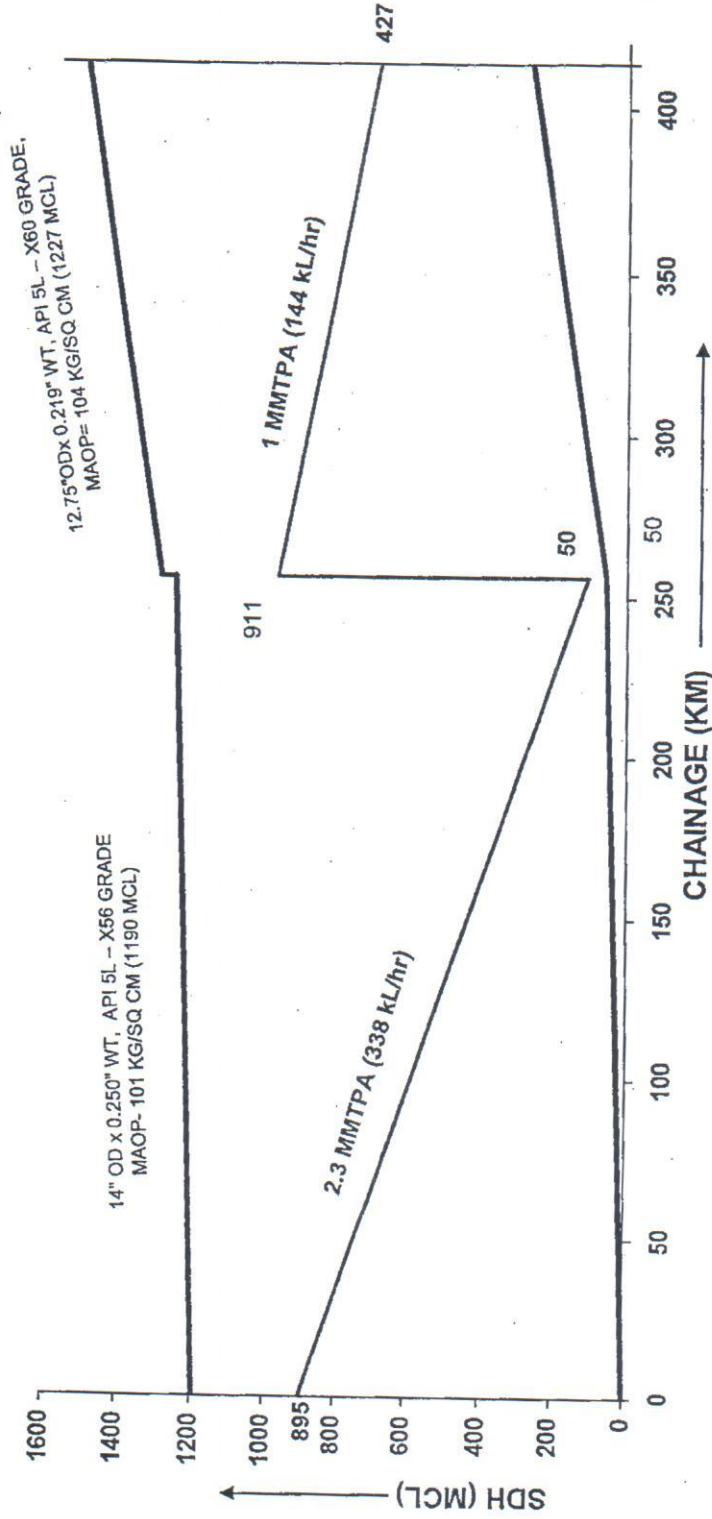
| STATION | CHENNAI | ASANUR | TRICHY | MADURAI |
|---------------|---------|--------|--------|---------|
| CHAINAGE (KM) | 0 | 256 | 371 | 526 |
| ALTITUDE (M) | 1 | 59 | 73 | 132 |

ANNEXURE-I(a)

[Signature]
03/10

CHENNAI-ASANUR-SANKARI SECTION

HYDRAULIC GRADIENT (STAGE-I)



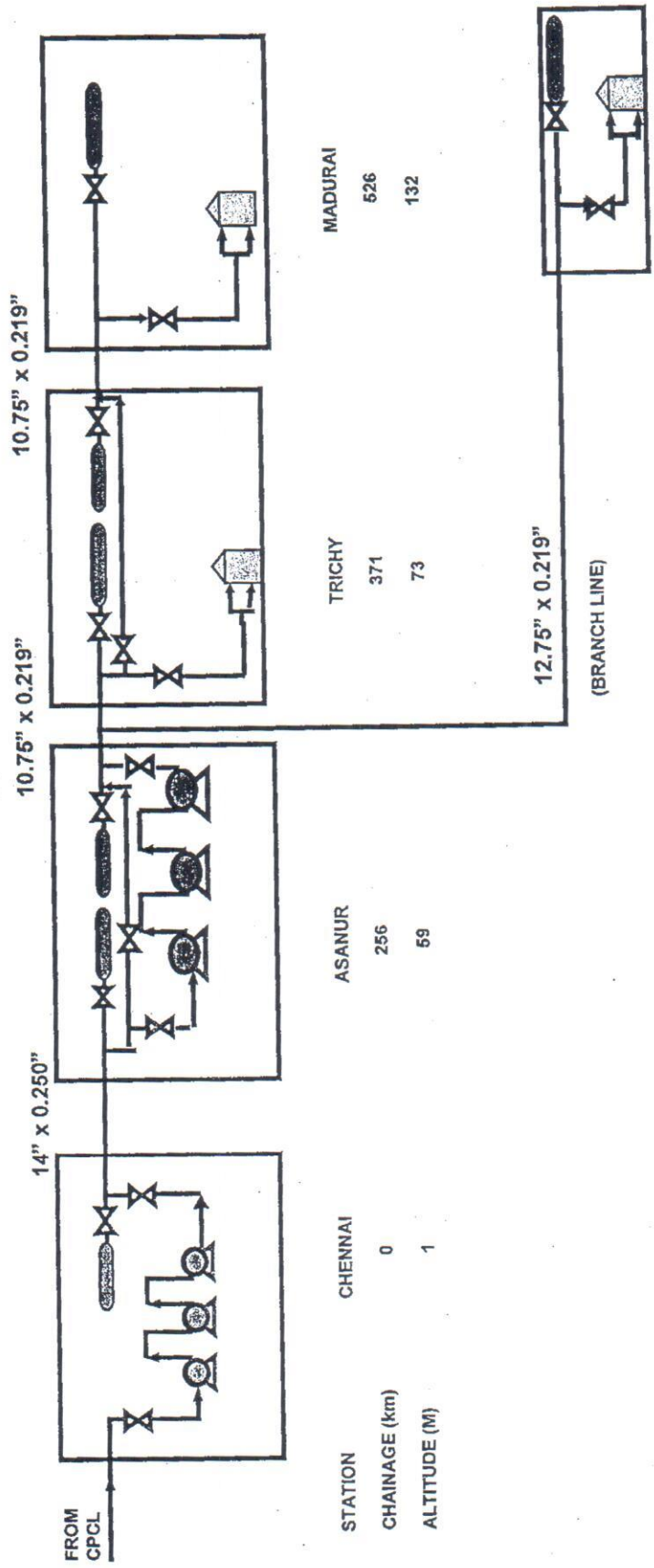
| STATION | CHENNAI | ASANUR | SANKARI |
|---------------|---------|--------|---------|
| CHAINAGE (KM) | 0 | 256 | 413 |
| ALTITUDE (M) | 1 | 59 | 266 |

ANNEXURE-I(b)

[Signature]
03/10/17

AUGMENTATION OF CHENNAI TRICHY MADURAI PIPELINE

Schematic Flow Diagram (Stage-I)



| STATION | CHAINAGE (km) | ALTITUDE (M) |
|---------|----------------|--------------|
| CHENNAI | 0 | 1 |
| ASANUR | 256 | 59 |
| TRICHY | 371 | 73 |
| MADURAI | 526 | 132 |
| SANKARI | 157 ex- ASANUR | 266 |

LEGEND

- Existing System
- Proposed System
- Pumping Unit (Operating)
- Pumping Unit (Stand By)
- Valve
- Scraper Barrel
- Tank Farm

(Handwritten signature)
11/10/20