



Crude **BEKAPAI**

Country Indonesia

TBP  
DISTILLATION

|                                |       |            |           |     |      |      |     |      |      |
|--------------------------------|-------|------------|-----------|-----|------|------|-----|------|------|
| Density at 15°C, kg/m3         | 816.8 | Assay Date | 01-Mar-16 | °C  | wt%  | vol% | °C  | wt%  | vol% |
| °API                           | 41.7  |            |           | 080 | 12.0 | 15.5 | 460 | 90.4 | 92.1 |
| Bbl/mt                         | 7.715 |            |           | 090 | 14.1 | 17.8 | 480 | 92.0 | 93.5 |
| Acidity, mg KOH/g              | 0.18  |            |           | 100 | 16.9 | 20.8 | 500 | 93.2 | 94.5 |
| Sulphur, wt%                   | 0.058 |            |           | 120 | 23.7 | 28.1 | 520 | 94.2 | 95.4 |
| Hydrogen Sulphide, mg/kg       | 2     |            |           | 140 | 30.0 | 34.6 | 540 | 95.1 | 96.1 |
| Mercaptan Sulphur, mg/kg       | 4     |            |           | 160 | 35.8 | 40.4 | 560 | 95.8 | 96.7 |
| Viscosity, cSt at 10 °C        | 4.2   |            |           | 180 | 41.2 | 45.9 | 580 | 96.4 | 97.2 |
| 50 °C                          | 1.9   |            |           | 200 | 45.3 | 50.0 |     |      |      |
| Pour Point, °C                 | 3     |            |           | 220 | 50.3 | 54.9 |     |      |      |
| Total Nitrogen, wt%            | 0.019 |            |           | 240 | 56.2 | 60.6 |     |      |      |
| Wax, wt%                       | 8.0   |            |           | 260 | 62.7 | 66.8 |     |      |      |
| Wax Appearance Temperature, °C | -     |            |           | 280 | 68.8 | 72.6 |     |      |      |
| RVP at 37.8 °C, kPa            | 52    |            |           | 300 | 73.2 | 76.7 |     |      |      |
| Water, vol%                    | -     |            |           | 320 | 75.5 | 78.8 |     |      |      |
| NaCl, mg/kg                    | -     |            |           | 340 | 76.7 | 79.9 |     |      |      |
| Nickel, mg/kg                  | 0.1   |            |           | 360 | 78.0 | 81.1 |     |      |      |
| Vanadium, mg/kg                | 0.3   |            |           | 380 | 80.3 | 83.2 |     |      |      |
| Iron, mg/kg                    | -     |            |           | 400 | 83.2 | 85.8 |     |      |      |
| Mercury, µg/kg                 | -     |            |           | 420 | 86.0 | 88.3 |     |      |      |
|                                |       |            |           | 440 | 88.4 | 90.4 |     |      |      |

PROPERTIES OF TBP CUTS

| LIGHT NAPHTHA     | Cuts    | Yield | Yield | Den 15°C | S      | RSH     | RON      | MON     |        |           | Napht. | Aro.    | RVP      |          |       |        |
|-------------------|---------|-------|-------|----------|--------|---------|----------|---------|--------|-----------|--------|---------|----------|----------|-------|--------|
|                   | °C      | wt%   | vol % | kg/m3    | wt%    | mg/kg   | clear    | clear   |        |           | vol%   | vol%    | kPa      |          |       |        |
|                   | 15-65   | 6.3   | 7.9   | 641      | 0.0017 | 3       | 86.4     | 80.8    |        |           | 2.6    | 0.1     | 168.03   |          |       |        |
|                   | 15-80   | 8.3   | 10.2  | 659      | 0.0021 | 4       | 90.3     | 82.2    |        |           | 7.2    | 0.6     | 141.12   |          |       |        |
| HEAVY NAPHTHA     | Cuts    | Yield | Yield | Den 15°C | S      | RSH     |          |         |        |           | Napht. | Aro.    |          |          |       |        |
|                   | °C      | wt%   | vol % | kg/m3    | wt%    | mg/kg   |          |         |        |           | vol%   | vol%    |          |          |       |        |
|                   | 80-150  | 20.9  | 22.0  | 767      | 0.0079 | 6       |          |         |        |           | 37.6   | 11.7    |          |          |       |        |
| 80-175            | 28.1    | 29.3  | 775   | 0.0097   | 6      |         |          |         |        | 38.8      | 12.4   |         |          |          |       |        |
| 100-150           | 15.9    | 16.6  | 775   | 0.0089   | 6      |         |          |         |        | 39.3      | 13.5   |         |          |          |       |        |
| KEROSENE          | Cuts    | Yield | Yield | Den 15°C | S      | RSH     | Smoke    | Acidity | Cetane | Freez. Pt |        | Aro.    | Visc cSt |          |       | Flash  |
|                   | °C      | wt%   | vol % | kg/m3    | wt%    | mg/kg   | Pt mm    | mgKOH/g | Index  | °C        |        | vol%    | 50°C     |          |       | Point  |
|                   | 150-230 | 20.3  | 20.2  | 814      | 0.021  | 6       | 17       | 0.18    | 33.9   | -53       |        | 14.1    | 1.2      |          |       | 55.1   |
|                   | 175-230 | 13.1  | 12.8  | 822      | 0.024  | 6       | 17       | 0.18    | 36.3   | -46       |        | 13.9    | 1.4      |          |       | 70.1   |
| 150-250           | 26.6    | 26.2  | 820   | 0.026    | 6      | 17      | 0.18     | 36.8    | -47    |           | 14.4   | 1.4     |          |          | 58.8  |        |
| GASOIL            | Cuts    | Yield | Yield | Den 15°C | S      |         | Anilin   |         | Cetane | Cloud Pt  | CFPP   | Pour Pt | Visc cSt | Visc cSt | UOPK  | Flash  |
|                   | °C      | wt%   | vol % | kg/m3    | wt%    |         | Point °C |         | Index  | C         | C      | C       | 50°C     | 100°C    |       | Point  |
|                   | 175-400 | 43.1  | 41.0  | 850      | 0.062  |         | 66       |         | 44.9   | -9        | -12    | -16     | 2.6      | 1.2      | 11.6  | 86.1   |
|                   | 230-400 | 30.1  | 28.2  | 863      | 0.078  |         | 70       |         | 47.6   | -3        | -4     | -5      | 3.5      | 1.5      | 11.7  | 100.1  |
| 230-375           | 26.5    | 24.9  | 858   | 0.074    |        | 70      |          | 47.3    | -10    | -11       | -11    | 3.2     | 1.4      | 11.6     | 98.9  |        |
| VACUUM DISTILLATE | Cuts    | Yield | Yield | Den 15°C | S      | Conrad. | Anilin   | Ni      | Va     | Total N   | Bas N  | Pour Pt | Visc cSt | Visc cSt | UOPK  | Asp C7 |
|                   | °C      | wt%   | vol % | kg/m3    | wt%    | wt%     | Point °C | mg/kg   | mg/kg  | wt%       | mg/kg  | C       | 100°C    | 150°C    |       | wt %   |
|                   | 375-550 | 15.9  | 13.8  | 926      | 0.13   | 0.0     | 80       | 0       | 0      | 0.028     | 100    | 39      | 4.6      | 2.0      | 11.7  | 0.0    |
|                   | 375-565 | 16.4  | 14.3  | 928      | 0.13   | 0.1     | 80       | 0       | 0      | 0.029     | 107    | 39      | 4.7      | 2.0      | 11.7  | 0.0    |
|                   | 375-580 | 16.8  | 14.6  | 929      | 0.13   | 0.1     | 81       | 0       | 0      | 0.031     | 114    | 40      | 4.8      | 2.1      | 11.7  | 0.0    |
| 400-580           | 13.2    | 11.4  | 937   | 0.14     | 0.1    | 82      | 0        | 0       | 0.037  | 136       | 43     | 5.6     | 2.3      | 11.7     | 0.0   |        |
| RESIDUE           | Cuts    | Yield | Yield | Den 15°C | S      | Conrad. | Acidity  | Ni      | Va     | Total N   |        | Pour Pt | Visc cSt | Visc cSt | Pene  | Asp C7 |
|                   | °C      | wt%   | vol % | kg/m3    | wt%    | wt%     | mgKOH/g  | mg/kg   | mg/kg  | wt%       |        | C       | 100°C    | 150°C    | mm/10 | wt%    |
|                   | > 375   | 20.4  | 17.4  | 946      | 0.16   | 2.0     | 0.2      | 1       | 1      | 0.079     |        | 48      | 8        | 3        | -     | 0.1    |
|                   | > 550   | 4.5   | 3.6   | 1021     | 0.27   | 8.9     | 0.2      | 2       | 6      | 0.260     |        | 57      | 162      | 25       | 275   | 0.4    |
|                   | > 565   | 4.0   | 3.2   | 1027     | 0.28   | 9.9     | 0.2      | 3       | 7      | 0.282     |        | 59      | 244      | 33       | 175   | 0.5    |
| > 580             | 3.6     | 2.8   | 1032  | 0.28     | 11.0   | 0.2     | 3        | 8       | 0.305  |           | 61     | 383     | 44       | 115      | 0.5   |        |

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TOTAL DTS / AM

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