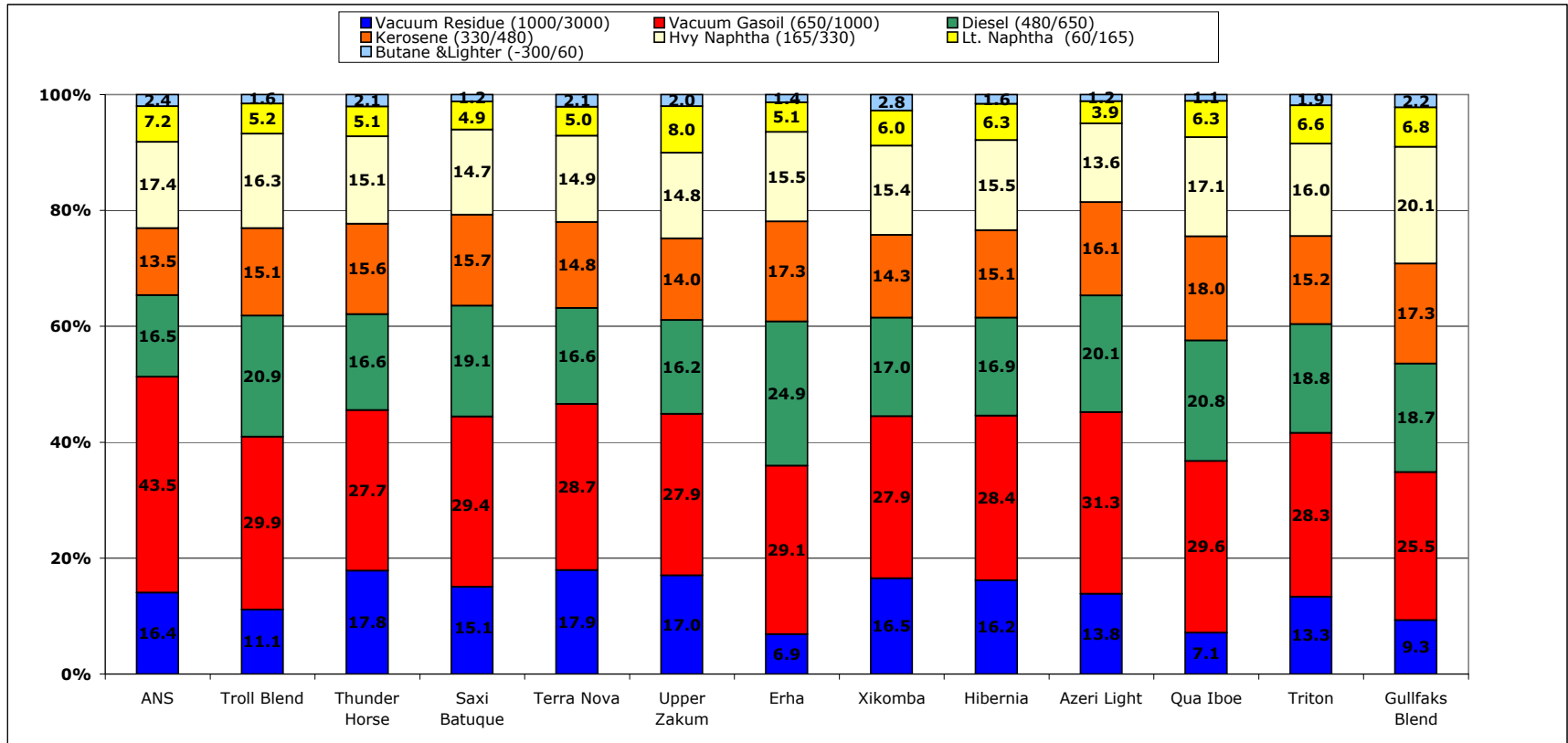
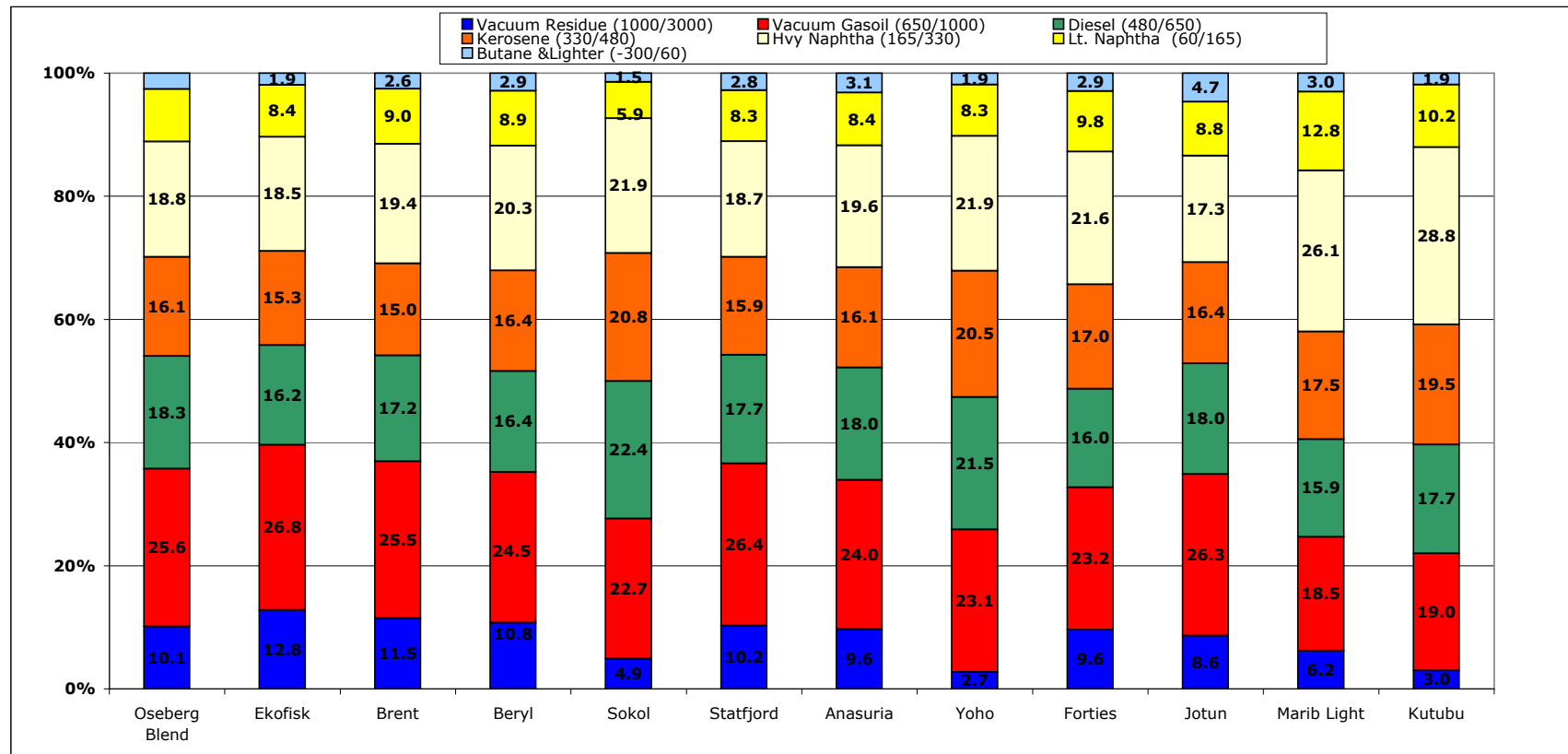


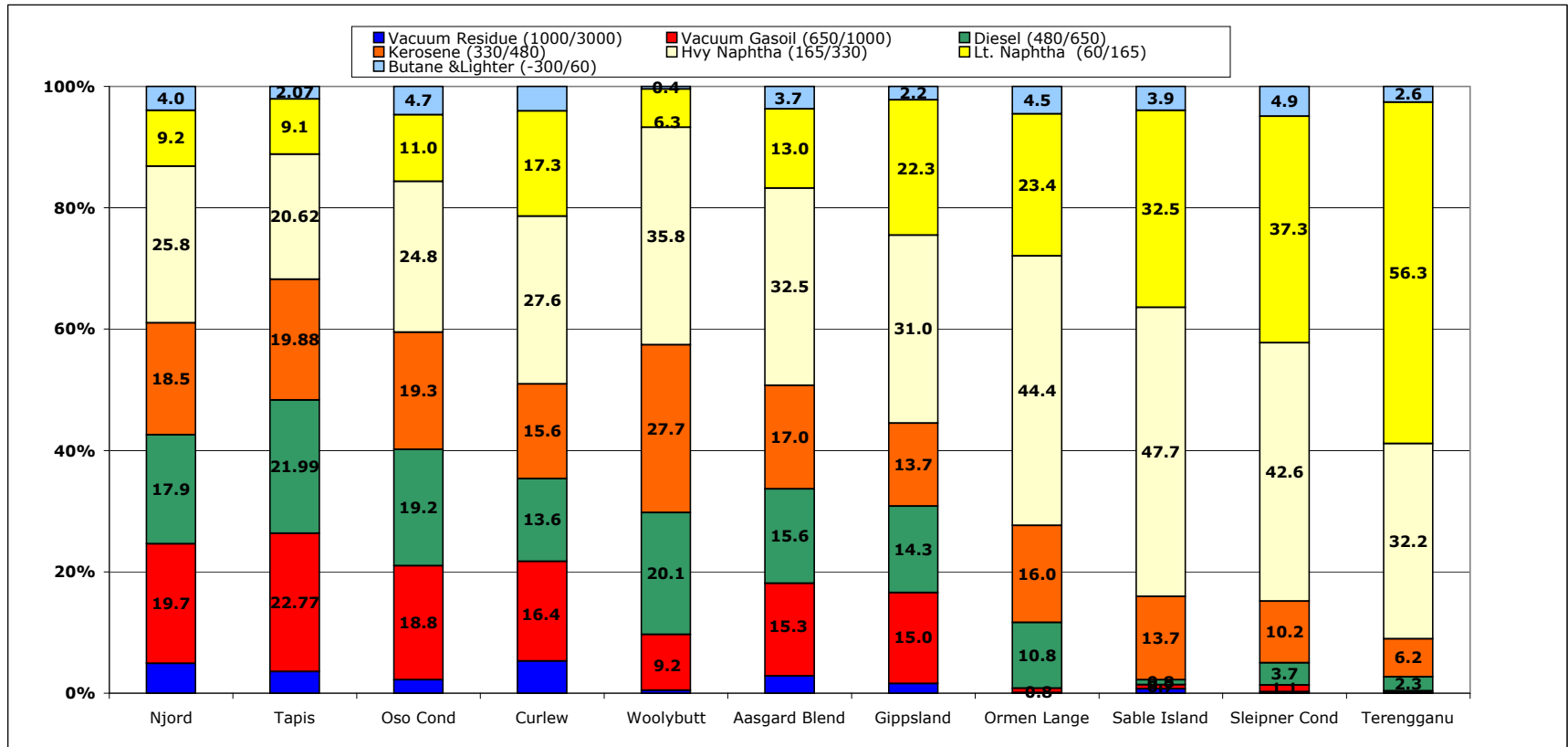
| | Grane | Cold Lake Blend | Doba Blend | Dalia | Hungo Blend | Volve | Mondo | Girassol | Bonga | Zafiro Blend | Kissanje Blend | HOOPS Blend |
|---------------------|---------|-----------------|------------|--------|-------------|--------|---------|----------|--------|--------------|----------------|-------------|
| API Gravity, | 19.1 | 19.7 | 21.0 | 23.1 | 28.3 | 29.3 | 29.9 | 29.9 | 30.2 | 30.6 | 30.7 | 31.2 |
| Whole-CR. SPGR | 0.9397 | 0.9 | 0.9279 | 0.9153 | 0.8855 | 0.88 | 0.8767 | 0.8767 | 0.8751 | 0.8729 | 0.8724 | 0.8697 |
| W-CR. Pour-F | -28.0 | -38.0 | 5.0 | -49.0 | -19.0 | 37 | -65 | -27.0 | -54.0 | -65.0 | -51.0 | -33.0 |
| Neut # | 2.1 | 0.8 | 4.3 | 1.5 | 0.5 | 0.071 | 0.66 | 0.4 | 0.6 | 0.8 | 0.5 | 0.9 |
| W-Crude %S | 0.8 | 3.7 | 0.1 | 0.5 | 0.6 | 1.8 | 0.4169 | 0.3 | 0.2 | 0.3 | 0.4 | 1.2 |
| W-Crude CCR | 6.1 | 11.9 | 6.1 | 5.4 | 5.6 | 3.96 | 5.37 | 3.0 | 1.2 | 0.0 | 3.7 | 2.9 |
| W-Crude NI | 5.2 | 57.5 | 8.4 | 23.9 | 18.0 | 5.4 | 24.4 | 9.6 | 3.3 | 14.0 | 10.7 | 6.7 |
| W-Crude Van. | 17.2 | 161.3 | 0.5 | 10.8 | 15.0 | 28 | 8.4 | 4.1 | 0.4 | 2.7 | 8.3 | 12.0 |
| Diesel Cloud-F | -10.0 | -38.0 | -57.0 | -42.0 | 12.0 | 19 | -2 | 12.0 | 0.0 | 6.0 | -11.0 | -26.0 |
| Diesel CI | 37.6 | 37.7 | 37.0 | 45.0 | 51.0 | 51.9 | 48.1 | 53.7 | 41.9 | 46.8 | 51.4 | 47.0 |
| Diesel SPGR | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8602 | 0.8685 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8717 |
| VGO NI, ppm | 0.1 | 0.5 | 0.1 | 0.1 | 0.1 | 0 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Resid %S | 1.5 | 6.0 | 0.1 | 0.9 | 1.3 | 3.6745 | 0.9515 | 0.7 | 0.7 | 0.6 | 0.9 | 2.7 |
| Resid CCR | 20.6 | 30.2 | 13.3 | 19.1 | 21.8 | 18.62 | 22.08 | 14.0 | 11.7 | 19.4 | 17.2 | 14.7 |
| Resid VAN. | 59.1 | 408.8 | 0.5 | 39.4 | 59.6 | 138.7 | 34.6 | 19.5 | 0.0 | 18.7 | 38.7 | 64.3 |
| Resid N2 | 7565.8 | 8251.3 | 3655.3 | 6876.9 | 8567.3 | 8034.4 | 9060.3 | 6225.0 | 7683.0 | 11041.2 | 6701.7 | 5128.7 |
| Resid Visc. 50C, cs | 2272128 | 1509978607 | 9331 | 315912 | 1683419 | 148976 | 3455126 | 35231 | 296632 | 6911020 | 163799 | 135692 |



| | ANS | Troll Blend | Thunder Horse | Saxi Batuque | Terra Nova | Upper Zakum | Erha | Xikomba | Hibernia | Azeri Light | Qua Iboe | Triton | Gullfaks Blend |
|----------------------------|-----------|-------------|---------------|--------------|------------|-------------|----------|----------|----------|-------------|----------|--------|----------------|
| API Gravity, | 32.3 | 33.5 | 33.9 | 32.8 | 33.2 | 34.0 | 34.2 | 34.7 | 35.0 | 35.0 | 36.0 | 36.0 | 37.8 |
| Whole-CR. SPGR | 0.8639 | 0.8577 | 0.8555 | 0.8612 | 0.8591 | 0.8550 | 0.8540 | 0.8514 | 0.8498 | 0.8498 | 0.8448 | 0.8446 | 0.8358 |
| W-CR. Pour-F | 5.0 | -6.0 | 10.0 | -17 | 54.0 | -65.0 | 8 | 37.0 | 37.0 | 28.0 | 56.0 | -26.0 | -33.0 |
| Neut # | 0.1 | 0.6 | 0.1 | 0.68 | 0.1 | 0.1 | 0.35 | 0.2 | 0.1 | 0.3 | 0.4 | 0.1 | 0.1 |
| W-Crude %S | 0.9 | 0.2 | 0.8 | 0.2869 | 0.5 | 1.9 | 0.1818 | 0.4 | 0.5 | 0.1 | 0.1 | 0.32 | 0.2 |
| W-Crude CCR | 4.4 | 2.1 | 4.7 | 0 | 2.4 | 5.1 | 0.88 | 3.5 | 2.2 | 1.4 | 1.2 | 1.7 | 1.3 |
| W-Crude NI | 8.9 | 0.8 | 10.2 | 8.9 | 1.4 | 8.9 | 4.5 | 12.0 | 1.3 | 3.0 | 5.5 | 1.6 | 1.0 |
| W-Crude Van. | 20.8 | 0.7 | 10.9 | 2.7 | 0.5 | 11.0 | 0.5 | 5.0 | 0.7 | 0.3 | 0.6 | 4.3 | 1.7 |
| Diesel Cloud-F | 11.0 | -10.0 | 16.0 | 13 | 24.0 | 20.0 | 17 | 24.0 | 24.0 | 22.0 | 24.0 | 20.0 | 13.0 |
| Diesel CI | 46.0 | 47.8 | 55.6 | 52.1 | 53.0 | 56.0 | 47.1 | 58.0 | 55.0 | 58.0 | 54.2 | 55.0 | 52.0 |
| Diesel SPGR | 0.8729 | 0.9 | 0.851 | 0.859 | 0.856 | 0.8498 | 0.8712 | 0.847 | 0.8523 | 0.8448 | 0.8545 | 0.8531 | 0.8588 |
| VGO NI, ppm | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 | 0.2 | 0.1 | 0.0 |
| Resid %S | 2.3 | 0.6 | 2.0 | 0.7818 | 1.4 | 4.2 | 0.5497 | 1.0 | 1.3 | 0.4 | 0.5 | 1.01 | 0.8 |
| Resid CCR | 21.9 | 16.0 | 21.8 | 17.4 | 11.4 | 24.3 | 10.36 | 17.0 | 11.5 | 8.4 | 14.4 | 10.5 | 11.6 |
| Resid VAN. | 106.7 | 5.4 | 55.9 | 15.6 | 2.4 | 57.5 | 6.3 | 28.3 | 3.7 | 1.9 | 6.6 | 26.6 | 15.5 |
| Resid N2 | 6698.6 | 4240.4 | 6782.0 | 7147.9 | 5199.6 | 3457.0 | 5545.8 | 5005.6 | 3516.5 | 5239.5 | 9406.5 | 3495.1 | 5091.3 |
| Resid Visc. 50C, cs | 1003539.6 | 18601 | 589143.6 | 224320.29 | 22930.0 | 322558.1 | 24575.03 | 133209.0 | 11029.7 | 6392.1 | 399415.8 | 6492.3 | 10135.9 |



| | Oseberg Blend | Ekofisk | Brent | Beryl | Sokol | Statfjord | Anasuria | Yoho | Forties | Jotun | Marib Light | Kutubu |
|----------------------------|---------------|---------|---------|---------|--------|-----------|----------|-----------|---------|---------|-------------|----------|
| API Gravity, | 37.8 | 37.9 | 38.5 | 38.0 | 36.7 | 39.3 | 39.7 | 40.1 | 40.6 | 41.0 | 43.7 | 44.1 |
| Whole-CR. SPGR | 0.8358 | 0.8353 | 0.8324 | 0.8348 | 0.8413 | 0.8284 | 0.8265 | 0.8246 | 0.8220 | 0.8203 | 0.8076 | 0.8058 |
| W-CR. Pour-F | 22 | 21.0 | 32.0 | 8.0 | -27 | 27 | 16.0 | 35.0 | -12.0 | 43.0 | -30.0 | 32 |
| Neut # | 0.2 | 0.1 | 0.1 | 0.2 | 0.145 | 0.07 | 0.0 | 0.3 | 0.1 | 0.1 | 0.1 | 0.04 |
| W-Crude %S | 0.25 | 0.2 | 0.41 | 0.4 | 0.25 | 0.25 | 0.31 | 0.09 | 0.56 | 0.19 | 0.13 | 0.0453 |
| W-Crude CCR | 2.07 | 1.8 | 2.2 | 2.0 | 1.16 | 1.91 | 1.4 | 0.7 | 1.7 | 1.4 | 1.3 | 0.55 |
| W-Crude NI | 1.6 | 3.2 | 1.3 | 1.7 | 2.2 | 1.6 | 1.3 | 1.0 | 2.3 | 0.6 | 4.2 | 0.5 |
| W-Crude Van. | 1.6 | 1.5 | 5.9 | 7.4 | 1.1 | 2.1 | 3.1 | 0.5 | 6.4 | 2.0 | 1.4 | 0.5 |
| Diesel Cloud-F | 18 | 23.0 | 20.0 | 25.0 | 21 | 22 | 24.0 | 0.0 | 24.0 | 25.0 | 25.0 | 30 |
| Diesel CI | 53.6 | 56.0 | 56.0 | 53.0 | 47.7 | 57 | 55.0 | 53.0 | 55.2 | 57.0 | 55.0 | 52 |
| Diesel SPGR | 0.8559 | 0.9 | 0.8508 | 0.8566 | 0.8687 | 0.8487 | 0.8513 | 0.8559 | 0.8506 | 0.8485 | 0.8519 | 0.8591 |
| VGO NI, ppm | 0 | 0.0 | 0.0 | 0.1 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| Resid %S | 0.84 | 0.7 | 1.37 | 1.5 | 1.04 | 0.81 | 1.16 | 0.53 | 2.05 | 0.84 | 0.65 | 0.269 |
| Resid CCR | 16.72 | 11.8 | 15.5 | 15.0 | 18.66 | 15.02 | 11.6 | 19.1 | 14.4 | 12.9 | 16.9 | 13.34 |
| Resid VAN. | 13 | 10.0 | 43.1 | 57.3 | 19 | 15.2 | 25.9 | 14.4 | 53.7 | 18.4 | 18.3 | 0.3 |
| Resid N2 | 5351 | 5437.1 | 5202.0 | 5902.7 | 8351 | 4681 | 3486.3 | 8837.7 | 4584.8 | 3875.1 | 5737.4 | 5349.9 |
| Resid Visc. 50C, cs | 41479 | 10268.5 | 30139.9 | 36631.8 | 27426 | 14810 | 5476.3 | 1613658.6 | 15023.8 | 11367.2 | 47461.1 | 17802.26 |



| | Njord | Tapis | Oso Cond | Curlew | Woolybutt | Aasgard Blend | Gippsland | Ormen Lange | Sable Island | Sleipner Cond | Terengganu |
|----------------------------|--------|---------|----------|--------|-----------|---------------|-----------|-------------|--------------|---------------|------------|
| API Gravity, | 46.6 | 45.6 | 46.2 | 47.4 | 49.0 | 49.4 | 52.3 | 60.6 | 59.3 | 63.2 | 72.6 |
| Whole-CR. SPGR | 0.7945 | 0.7990 | 0.7963 | 0.7909 | 0.7839 | 0.7822 | 0.7698 | 0.7366 | 0.7416 | 0.7268 | 0.6933 |
| W-CR. Pour-F | 5 | 64.0 | 32 | 8.0 | -65.0 | -53.0 | 7.0 | -76 | -76.0 | -33.0 | -33.0 |
| Neut # | 0.02 | 0.2 | 0.11 | 0.1 | 0.1 | 0.1 | 0.1 | 0.012 | 0.1 | 0.0 | 0.0 |
| W-Crude %S | 0.048 | 0.03 | 0.0483 | 0.1438 | 0.014 | 0.1369 | 0.0802 | 0.0039 | 0.0016 | 0.0117 | 0.0017 |
| W-Crude CCR | 0.39 | 0.5 | 0.54 | 0.9 | 0.2 | 0.5 | 0.3 | 0.01 | 0.0 | 0.0 | 0.0 |
| W-Crude NI | 0.2 | 1.6 | 0.5 | 0.9 | 2.1 | 0.4 | 0.1 | 0.1 | 1.0 | 0.0 | 0.5 |
| W-Crude Van. | 0.1 | 0.3 | 0.5 | 0.7 | 0.1 | 0.9 | 0.0 | 0.1 | 0.5 | 1.2 | 0.5 |
| Diesel Cloud-F | 20 | 46.0 | 37 | 32.0 | 20.0 | 25.0 | 38.0 | 33 | 139.5 | 20.0 | 15.0 |
| Diesel CI | 62.6 | 65.9 | 57.5 | 54.0 | 56.0 | 59.8 | 55.0 | 69.2 | 19.0 | 50.3 | 62.0 |
| Diesel SPGR | 0.8345 | 0.8288 | 0.8463 | 0.8536 | 0.8472 | 0.8409 | 0.8523 | 0.8224 | 0.8654 | 0.8566 | 0.8263 |
| VGO NI, ppm | 0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Resid %S | 0.3233 | 0.18 | 0.2542 | 0.794 | 0.4991 | 1.0958 | 0.8581 | 0.2372 | 0.0949 | 0.4982 | 0.1728 |
| Resid CCR | 6.57 | 10.8 | 16.36 | 11.0 | 33.6 | 12.5 | 12.5 | 9.22 | 0.6 | 1.1 | 2.0 |
| Resid VAN. | 0.7 | 6.9 | 0.4 | 10.2 | 12.0 | 16.7 | 2.2 | 97 | 0.0 | 335.4 | 21.2 |
| Resid N2 | 2302 | 3421.1 | 4796.1 | 4122.1 | 4108.0 | 2670.0 | 1546.1 | 804.9 | 197.9 | 552.2 | 489.9 |
| Resid Visc. 50C, cs | 0 | 72399.6 | 15138.87 | 1722.4 | 595724.8 | 2459.5 | 7390 | 86063 | 174173.0 | 158.5 | 1995.1 |