

BP 1 Approved Crude List dated 04/01/2019

| BP1 | Symbol | Type | Origin | Gravity | Sulfur | Acidity(TAN) | Mercaptan | Pour Point | | RVP | Viscosity, SUS | | | Viscosity, cSt | | |
|--------------------------------|--------------|------|--------------|---------|--------|--------------|-----------|------------|-------|------------|----------------|------------|------------|----------------|------------|------------|
| | | | | °API | %wt | mgKOH/g | RSH %wt | °F | °C | psi @100°F | 50°F(10°C) | 68°F(20°C) | 86°F(30°C) | 50°F(10°C) | 68°F(20°C) | 86°F(30°C) |
| B (WTI) | B | sw | WT/NM | 38.7 | 0.184 | 0.05 | 0.0009 | 4.5 | -15.0 | 6.31 | 58.73 | 48.53 | 42.58 | 9.97 | 6.92 | 5.06 |
| Bakken @Cushing - Pony PL | BAK | sw | North Dakota | 43.8 | 0.131 | 0.03 | 0.0007 | -11.2 | -24.0 | 9.70 | 39.71 | 36.54 | 34.49 | 4.16 | 3.21 | 2.56 |
| C (WTS) | C | so | WT/NM | 32.9 | 1.64 | 0.32 | 0.0117 | -22.5 | -30 | 5.67 | 74.59 | 58.56 | 49.57 | 14.28 | 9.92 | 7.24 |
| Domestic Sweet (ARB) | ARB | sw | WT/NM | 38.7 | 0.184 | 0.05 | 0.0009 | 4.5 | -15 | 6.31 | 58.73 | 48.53 | 42.58 | 9.97 | 6.92 | 5.06 |
| Canadian Access Western Blend | AWB | so | Canada | 21.6 | 3.79 | 1.73 | 0.0031 | -46.3 | -43.5 | 6.7 | 2111 | 1147 | 673.0 | 457.1 | 248.0 | 145.4 |
| Canadian Borealis Heavy Blend | BHB | so | Canada | 21.7 | 3.79 | 2.43 | 0.0023 | -48.7 | -44.8 | 6.68 | 1688 | 975.4 | 605.9 | 365.9 | 211.0 | 130.9 |
| Canadian Christina Lake Dilbit | CHL | so | Canada | 21.7 | 3.85 | 1.66 | 0.0028 | -36.6 | -38.1 | 7.31 | 2166 | 1096 | 608.7 | 469.1 | 237.0 | 131.5 |
| Canadian Cold Lake | COL | so | Canada | 21.3 | 3.63 | 1.17 | 0.0031 | -41.8 | -41.0 | 6.84 | 2008 | 991.6 | 541.6 | 434.8 | 214.5 | 117.0 |
| Canadian Kearl | KRL | so | Canada | 21.1 | 3.89 | 1.92 | 0.0030 | -40.9 | -40.5 | 7.14 | 1557 | 1031 | 628.2 | 337.2 | 223.0 | 135.7 |
| Fort Hills Dilbit | FRB | so | Canada | 20.9 | 3.87 | 2.28 | 0.0027 | -43.6 | -42.0 | 6.46 | 1897 | 933.8 | 509.2 | 410.7 | 202.0 | 110.0 |
| Lloydminster | LLB | so | Canada | 20.9 | 3.50 | 0.841 | 0.0018 | -42.9 | -41.6 | 8.18 | 2415 | 1257 | 713.3 | 523.0 | 272.0 | 154.1 |
| Mars | MARS | so | US | 29.4 | 1.88 | 0.410 | 0.0007 | -5.8 | -21.0 | 9.23 | 162.0 | 109.1 | 77.30 | 35.08 | 23.60 | 16.70 |
| Mississippi Lime | MSM | sw | US | 35.4 | 0.450 | 0.01 | 0.0008 | -5.8 | -21.0 | 5.90 | 74.90 | 57.94 | 48.72 | 14.36 | 9.74 | 6.98 |
| Niobrara @Cushing Pony PL | NIB | sw | Colorado | 37.5 | 0.402 | 0.05 | 0.0003 | 26.6 | -3.0 | 8.11 | 54.63 | 47.50 | 42.84 | 8.77 | 6.66 | 5.14 |
| Permian Sour Blend | Permian Sour | so | US | 39.7 | 0.454 | 0.08 | 0.0247 | -11.2 | -24.0 | 8.61 | 42.39 | 38.91 | 36.44 | 5.00 | 3.91 | 3.15 |
| Western Canadian Select | WCS | so | Canada | 20.7 | 3.52 | 1.09 | 0.0019 | -41.8 | -41.0 | 7.55 | 1812 | 1063 | 665.6 | 392.4 | 230.0 | 143.8 |
| West Texas Sour @ Cushing | WTS | so | US | 32.9 | 1.64 | 0.33 | 0.0117 | -22.5 | -30.0 | 5.67 | 74.59 | 58.56 | 49.57 | 14.28 | 9.92 | 7.24 |
| White Cliff Condensate | WHC | sw | Colorado | 48.9 | 0.0820 | 0.09 | 0.0007 | -4 | -20.0 | 7.75 | 34.63 | 33.01 | 31.81 | 2.60 | 2.12 | 1.77 |
| WTI @ Cushing | WTI | sw | US | 41.2 | 0.400 | 0.06 | 0.0018 | -38.2 | -39.0 | 7.69 | 44.68 | 40.58 | 37.71 | 5.72 | 4.43 | 3.54 |
| WTI Midland | WTI Midland | sw | US | 42.5 | 0.094 | 0.02 | 0.0012 | -16.6 | -27.0 | 7.22 | 42.65 | 38.94 | 36.34 | 5.08 | 3.92 | 3.12 |