



LIEBHERR R914 053852-1511

Hydraulic System

PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------------------------|--------|--------------------------|-----------|-------------|----------|----------|
| Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. | Sample Number | | Client Info | | LH0287898 | | |
| | Sample Date | | Client Info | | 26 Apr 2024 | | |
| | Machine Age | hrs | Client Info | | 529 | | |
| | Oil Age | hrs | Client Info | | 0 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | Changed | | |
| | Filter Changed | | Client Info | | N/A | | |
| | Sample Status | | | | NORMAL | | |
| WEAR | Iron | ppm | ASTM D5185(m) | >50 | 7 | | |
| | Chromium | ppm | ASTM D5185(m) | | <1 | | |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185(m) | | 0 | | |
| | Titanium | ppm | ASTM D5185(m) | | 0 | | |
| | Silver | ppm | ASTM D5185(m) | | 0 | | |
| | Aluminum | ppm | ASTM D5185(m) | >8 | <1 | | |
| | Lead | ppm | ASTM D5185(m) | | <1 | | |
| | Copper | ppm | ASTM D5185(m) | | 11 | | |
| | Tin | ppm | ASTM D5185(m) | | 0 | | |
| | Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| | White Metal | scalar | Visual* | NONE | NONE | | |
| | Yellow Metal | scalar | Visual* | NONE | NONE | | |
| | | | | | | | |
| CONTAMINATION The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. | Silicon | ppm | ASTM D5185(m) | | 6 | | |
| | Potassium | ppm | ASTM D5185(m) | | 1 | | |
| | Water | | WC Method | | NEG | | |
| | Particles >4µm | | ASTM D7647 | | 19958 | | |
| | Particles >6µm | | ASTM D7647 | | 4940 | | |
| | Particles >14µm | | ASTM D7647 | | 521 | | |
| | Particles >21µm | | ASTM D7647 ASTM D7647 | | 145 7 | | |
| | Particles >38µm Particles >71µm | | ASTM D7647 ASTM D7647 | | 1 | | |
| | Oil Cleanliness | | ISO 4406 (c) | | 21/19/16 | | |
| | Silt | scalar | Visual* | NONE | NONE | | |
| | Debris | scalar | Visual* | NONE | VLITE | | |
| | Sand/Dirt | scalar | Visual* | NONE | NONE | | |
| | Appearance | scalar | Visual* | NORML | NORML | | |
| | Odor | scalar | Visual* | NORML | NORML | | |
| | Emulsified Water | scalar | Visual* | >0.1 | NEG | | |
| | | | | | | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185(m) | | 1 | | |
| Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service. | Boron | ppm | ASTM D5185(m) | | <1 | | |
| | Barium | ppm | ASTM D5185(m) | | <1 | | |
| | Molybdenum | ppm | ASTM D5185(m) | | 0 | | |
| | Manganese | ppm | ASTM D5185(m) | | <1 | | |
| | Magnesium | ppm | ASTM D5185(m) | | 4 | | |
| | Calcium | ppm | | 100 | 1413 | | |
| | Phosphorus | ppm | ASTM D5185(m) | | 597 | | |
| | Zinc | ppm | ASTM D5185(m) | | 684 | | |
| | Sulfur | ppm | ASTM D5185(m) | 1600 | 4247 | | |

Visc @ 40°C

cSt

ASTM D7279(m) 47.9

44.0



