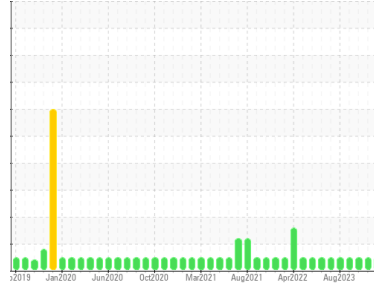


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Framo [450240153]
Machine Id
HPU VRC Hyd. Power (S/N Sample Tag IH-65201-S1)
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX MV ARCTIC 15 (310 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | PC | PC0078224 | PC0076635 |
| Sample Date | Client Info | 28 Dec 2023 | 24 Nov 2023 | 26 Oct 2023 |
| Machine Age | hrs | Client Info | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|-----------------|------------|----------|----------|
| Water | WC Method >0.05 | NEG | NEG | NEG |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| PQ | ASTM D8184* | 0 | 0 | 0 |
| Iron | ppm ASTM D5185(m) >20 | 0 | 0 | 0 |
| Chromium | ppm ASTM D5185(m) >10 | 0 | 0 | 0 |
| Nickel | ppm ASTM D5185(m) >10 | 0 | <1 | <1 |
| Titanium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm ASTM D5185(m) | 0 | 0 | <1 |
| Aluminum | ppm ASTM D5185(m) >10 | <1 | <1 | 0 |
| Lead | ppm ASTM D5185(m) >20 | 0 | <1 | <1 |
| Copper | ppm ASTM D5185(m) >20 | <1 | <1 | <1 |
| Tin | ppm ASTM D5185(m) >10 | 0 | 0 | 0 |
| Antimony | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Vanadium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm ASTM D5185(m) | 0 | 0 | 0 |

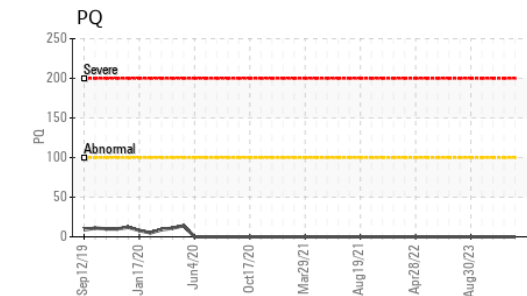
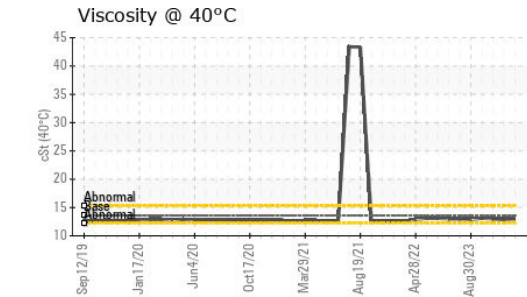
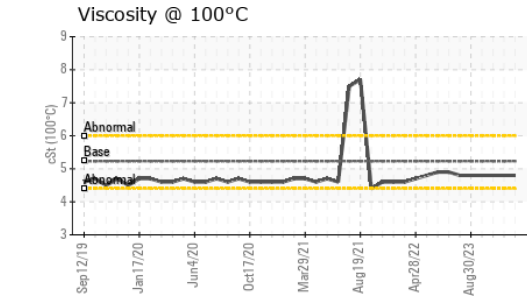
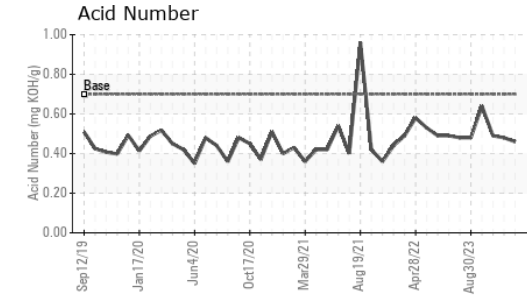
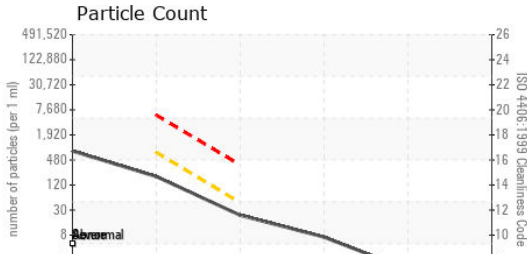
ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|-----------------------|--------------|----------|----------|
| Boron | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Barium | ppm ASTM D5185(m) 0 | 0 | 0 | <1 |
| Molybdenum | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Manganese | ppm ASTM D5185(m) 0 | 0 | 0 | 0 |
| Magnesium | ppm ASTM D5185(m) 0 | <1 | <1 | 0 |
| Calcium | ppm ASTM D5185(m) 50 | 29 | 28 | 30 |
| Phosphorus | ppm ASTM D5185(m) 330 | 324 | 322 | 322 |
| Zinc | ppm ASTM D5185(m) 430 | 386 | 389 | 394 |
| Sulfur | ppm ASTM D5185(m) 760 | 804 | 777 | 755 |
| Lithium | ppm ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|-----------------------|--------------|----------|----------|
| Silicon | ppm ASTM D5185(m) >15 | <1 | <1 | 0 |
| Sodium | ppm ASTM D5185(m) | 0 | 0 | 0 |
| Potassium | ppm ASTM D5185(m) >20 | <1 | 0 | 0 |

OIL ANALYSIS REPORT



| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--------------|-----------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | | | 693 | 637 | 659 |
| Particles >6µm | ASTM D7647 | >640 | | 169 | 155 | 155 |
| Particles >14µm | ASTM D7647 | >40 | | 20 | 9 | 14 |
| Particles >21µm | ASTM D7647 | >10 | | 6 | 2 | 4 |
| Particles >38µm | ASTM D7647 | >3 | | 1 | 0 | 2 |
| Particles >71µm | ASTM D7647 | >3 | | 0 | 0 | 1 |
| Oil Cleanliness | ISO 4406 (c) | >--/16/12 | | 17/15/11 | 16/14/10 | 17/14/11 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.70 | 0.46 | 0.48 | 0.49 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.05 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|----------------------|-------|---------------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 13.6 | 13.0 | 12.9 | 13.0 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 5.23 | 4.8 | 4.8 | 4.8 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 394 | 359 | 364 | 359 |

| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
| Color | | | | | | |
| Bottom | | | | | | |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : **02609356** **Received** : 17 Jan 2024
Unique Number : 5710442 **Diagnosed** : 18 Jan 2024
Test Package : MAR 2 (Additional Tests: KV100, PQ, VI) **Diagnostician** : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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