

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
ISO - Laminator [B3410]
 Machine Id
Laminator Hydraulic System B3410
 Component
Hydraulic System
 Fluid
SHELL TELLUS 46 (--- GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample. (Customer Sample Comment: Oil is new - A month ago switched from Hydrex 46 to Shell Tellus 46 - Filter is old)

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info | | PCA0106230 | --- | --- |
| Sample Date | Client Info | | 13 Sep 2023 | --- | --- |
| Machine Age | mths | Client Info | 1 | --- | --- |
| Oil Age | mths | Client Info | 1 | --- | --- |
| Oil Changed | Client Info | | Changed | --- | --- |
| Sample Status | | | NORMAL | --- | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | 0 | --- | --- |
| Chromium | ppm | ASTM D5185m >20 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m >20 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m >20 | <1 | --- | --- |
| Lead | ppm | ASTM D5185m >20 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m >20 | <1 | --- | --- |
| Tin | ppm | ASTM D5185m >20 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | <1 | --- | --- |
| Cadmium | ppm | ASTM D5185m | 0 | --- | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 0.0 | 0 | --- | --- |
| Barium | ppm | ASTM D5185m 0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m 0 | <1 | --- | --- |
| Manganese | ppm | ASTM D5185m | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m 11 | 51 | --- | --- |
| Calcium | ppm | ASTM D5185m 35 | 31 | --- | --- |
| Phosphorus | ppm | ASTM D5185m 266 | 299 | --- | --- |
| Zinc | ppm | ASTM D5185m 276 | 351 | --- | --- |
| Sulfur | ppm | ASTM D5185m 1847 | 940 | --- | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | <1 | --- | --- |
| Sodium | ppm | ASTM D5185m | 1 | --- | --- |
| Potassium | ppm | ASTM D5185m >20 | <1 | --- | --- |

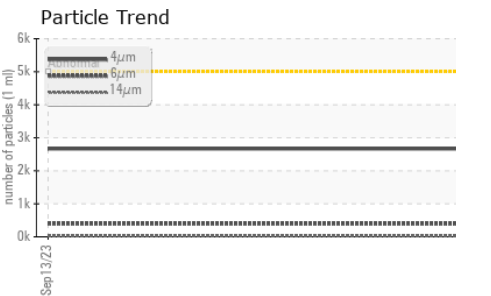
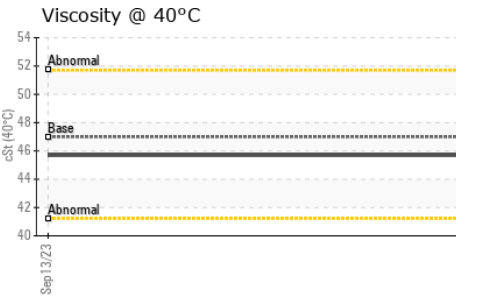
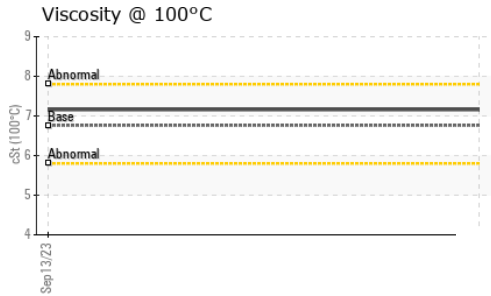
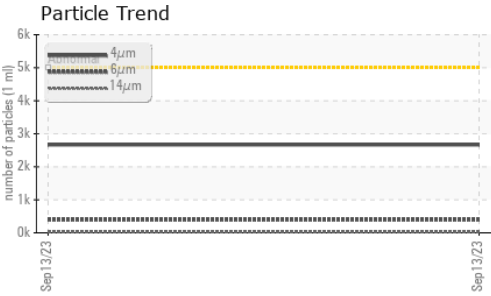
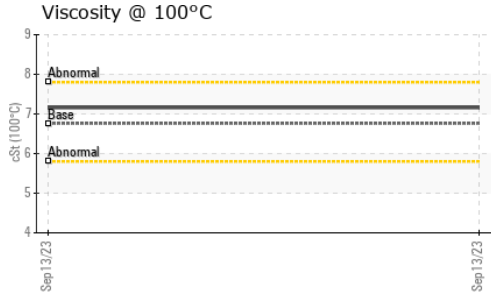
FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >5000 | 2666 | --- | --- |
| Particles >6µm | ASTM D7647 | >1300 | 396 | --- | --- |
| Particles >14µm | ASTM D7647 | >160 | 19 | --- | --- |
| Particles >21µm | ASTM D7647 | >40 | 5 | --- | --- |
| Particles >38µm | ASTM D7647 | >10 | 1 | --- | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | 19/16/11 | --- | --- |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.36 | 0.37 | --- | --- |

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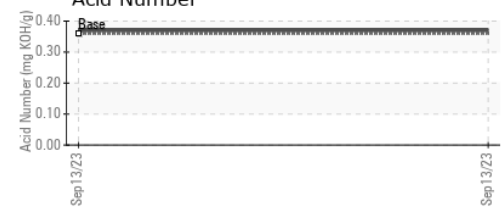
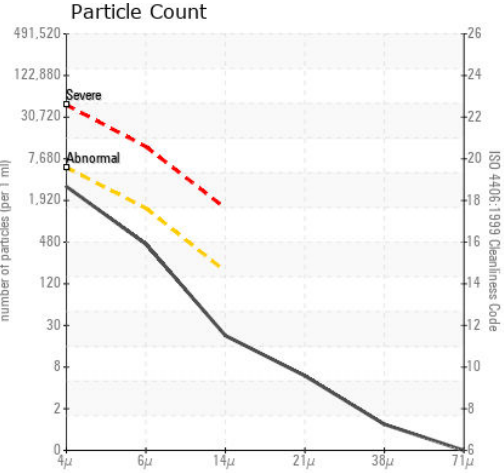
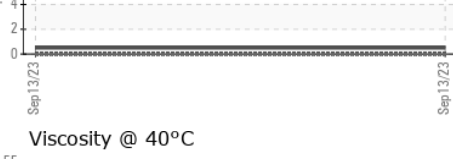
| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 | |
|----------------------|--------|------------|---------|--------------|----------|-----|
| Visc @ 40°C | cSt | ASTM D445 | 46.99 | 45.69 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 6.76 | 7.16 | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 96 | 116 | --- | --- |

SAMPLE IMAGES

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0106230 **Received** : 15 Sep 2023
Lab Number : **05953114** **Diagnosed** : 20 Sep 2023
Unique Number : 10649073 **Diagnostician** : Jonathan Hester
Test Package : PLANT (Additional Tests: KV100, VI)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)