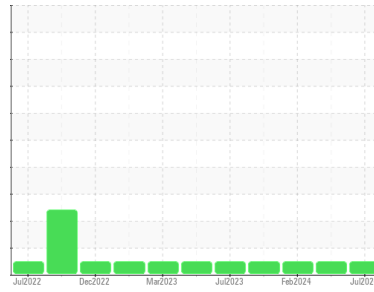




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

OKLAHOMA/102/TR/UNKNOWN

Machine Id

48.89L [OKLAHOMA^102^TR^UNKNOWN]

Component

Hydraulic System

Fluid

{not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. (Customer Sample Comment: 5489 hours)

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

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 | | WC0925133 | WC0864417 | WC0864314 |
| Sample Date | Client Info | | 03 Jul 2024 | 03 May 2024 | 05 Feb 2024 |
| Machine Age | hrs | Client Info | 5489 | 5051 | 4432 |
| Oil Age | hrs | Client Info | 1782 | 1782 | 1782 |
| 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 | >0.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|----------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | 4 | 4 | 2 |
| Chromium | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Nickel | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | 2 | 2 | 1 |
| Lead | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m >75 | 1 | 4 | 2 |
| Tin | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m | 15 | 21 | 17 |
| Barium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | 0 | 2 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | 11 | 17 | 10 |
| Calcium | ppm | ASTM D5185m | 1861 | 1889 | 1771 |
| Phosphorus | ppm | ASTM D5185m | 879 | 892 | 894 |
| Zinc | ppm | ASTM D5185m | 1009 | 1122 | 1089 |
| Sulfur | ppm | ASTM D5185m | 3709 | 3873 | 3254 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | 6 | 6 | 5 |
| Sodium | ppm | ASTM D5185m | 2 | 2 | 1 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 0 | 0 |

FLUID CLEANLINESS

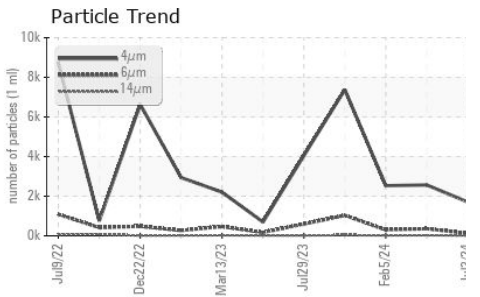
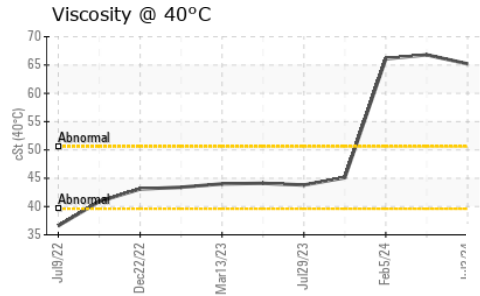
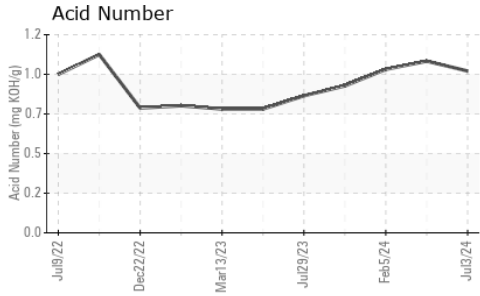
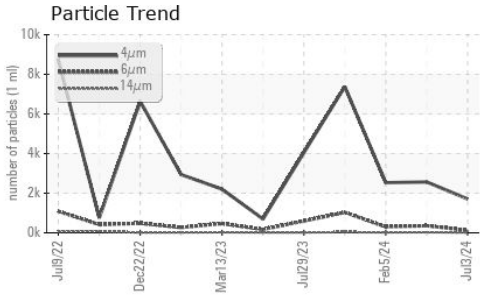
| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | | 1709 | 2568 | 2527 |
| Particles >6µm | ASTM D7647 | >2500 | 119 | 358 | 299 |
| Particles >14µm | ASTM D7647 | >640 | 8 | 28 | 18 |
| Particles >21µm | ASTM D7647 | >160 | 2 | 7 | 3 |
| Particles >38µm | ASTM D7647 | >40 | 1 | 1 | 0 |
| Particles >71µm | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >--/18/16 | 18/14/10 | 19/16/12 | 19/15/11 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.98 | 1.04 | 0.99 |



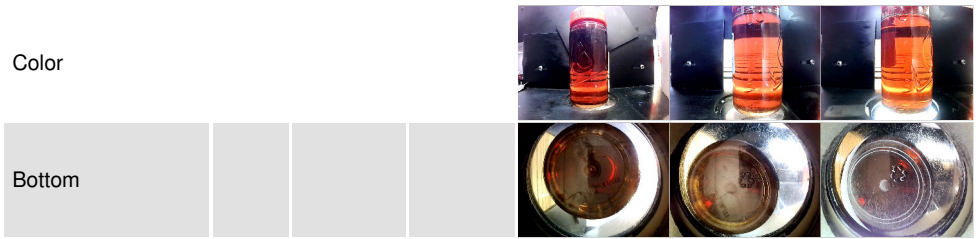
OIL ANALYSIS REPORT



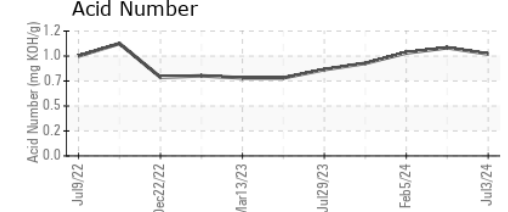
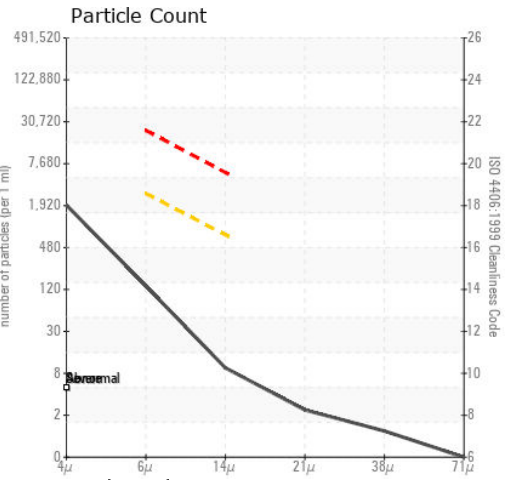
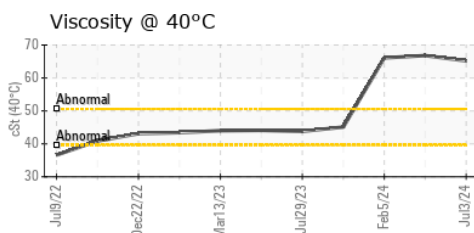
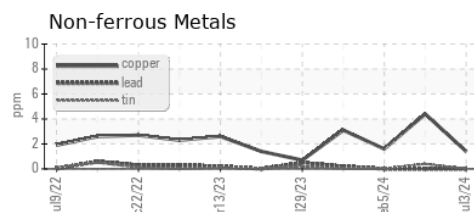
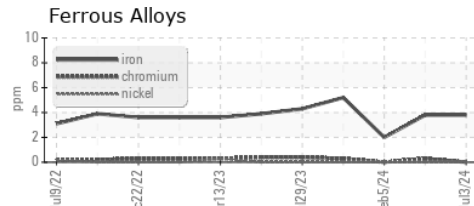
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 65.2 | 66.8 | 66.1 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0925133
Lab Number : 06236755
Unique Number : 11125589
Test Package : CONST
Received : 15 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 17 Jul 2024 - Don Baldrige

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 WICHITA, KS
 US 67213
 Contact: DOUG KING
 doug.king@sherwood.net
 T: (316)617-3161
 F: x:

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)