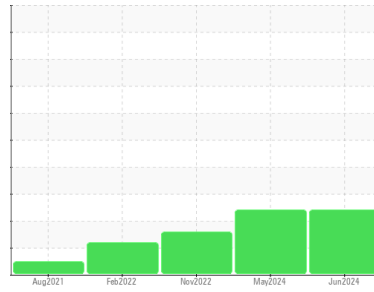




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area

OKLAHOMA/102/EG - OTHER SERVICE

Machine ID

54.104L [OKLAHOMA^102^EG - OTHER SERVICE]

Component

Hydraulic System

Fluid

MOBIL MOBILFLUID 424 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. There is too much water present in this sample to perform a particle count. (Customer Sample Comment: 1299 hours)

Wear

All component wear rates are normal.

Contamination

Appearance is milky. There is a moderate concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0925210 | WC0864445 | WC0741064 |
| Sample Date | Client Info | | 10 Jun 2024 | 14 May 2024 | 16 Nov 2022 |
| Machine Age | hrs | Client Info | 1299 | 1248 | 521 |
| Oil Age | hrs | Client Info | 521 | 580 | 232 |
| Oil Changed | Client Info | | N/A | N/A | Changed |
| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | 5 | 4 | 4 |
| Chromium | ppm | ASTM D5185m >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | <1 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >10 | 2 | 2 | <1 |
| Lead | ppm | ASTM D5185m >10 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m >75 | 10 | 4 | 2 |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185m | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | <1 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 26 | 34 | 55 |
| Barium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | <1 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 11 | 0 | 9 |
| Calcium | ppm | ASTM D5185m | 2510 | 2571 | 1803 |
| Phosphorus | ppm | ASTM D5185m | 1019 | 1009 | 732 |
| Zinc | ppm | ASTM D5185m | 1229 | 1205 | 889 |
| Sulfur | ppm | ASTM D5185m | 5265 | 5271 | 3278 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|----------------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | 5 | 5 | 5 |
| Sodium | ppm | ASTM D5185m | 4 | 2 | 3 |
| Potassium | ppm | ASTM D5185m >20 | 6 | 4 | 0 |
| Water | % | ASTM D6304 >0.1 | ▲ 0.457 | ▲ 0.594 | --- |
| ppm Water | ppm | ASTM D6304 >1000 | ▲ 4570 | ▲ 5940 | --- |

FLUID CLEANLINESS

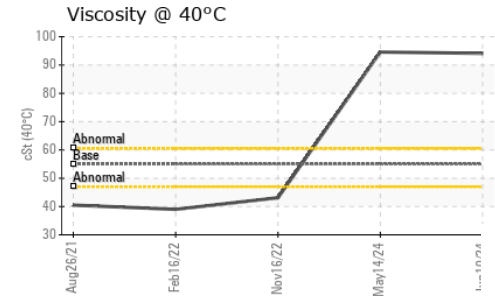
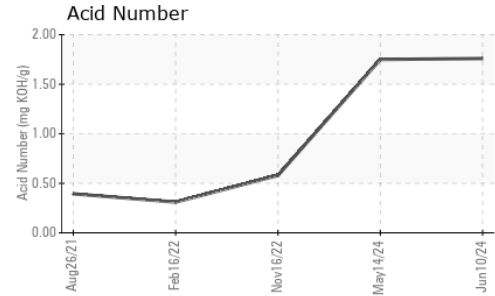
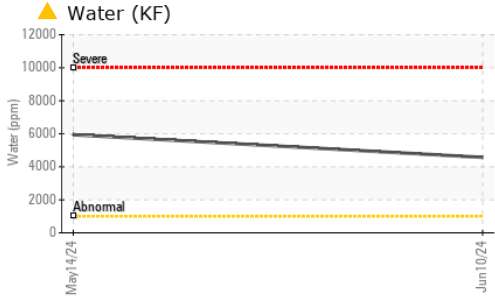
| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|------------|----------|------------|
| Particles >4µm | ASTM D7647 | | --- | --- | 18136 |
| Particles >6µm | ASTM D7647 | >2500 | --- | --- | ▲ 5119 |
| Particles >14µm | ASTM D7647 | >640 | --- | --- | ▲ 884 |
| Particles >21µm | ASTM D7647 | >160 | --- | --- | ▲ 281 |
| Particles >38µm | ASTM D7647 | >40 | --- | --- | 13 |
| Particles >71µm | ASTM D7647 | >10 | --- | --- | 1 |
| Oil Cleanliness | ISO 4406 (c) | >--/18/16 | --- | --- | ▲ 21/20/17 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.76 | 1.75 | 0.58 |



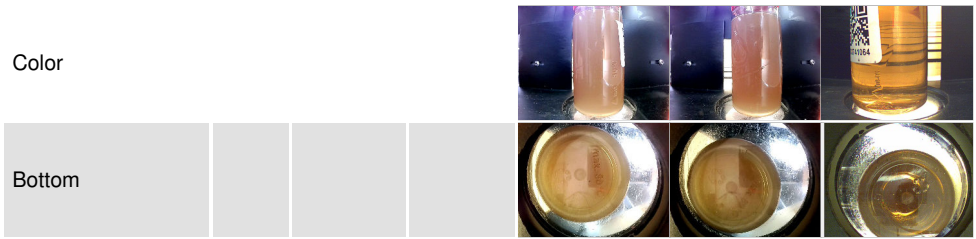
OIL ANALYSIS REPORT



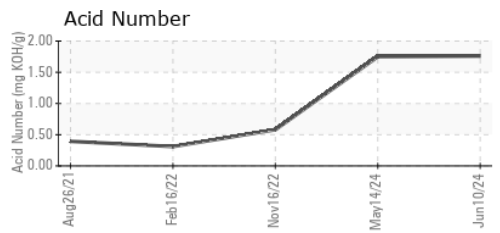
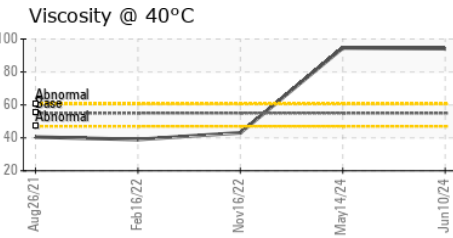
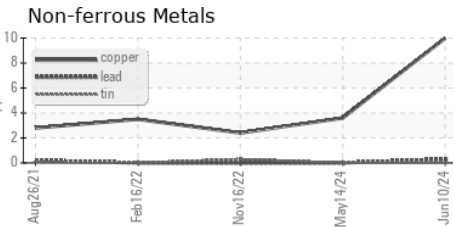
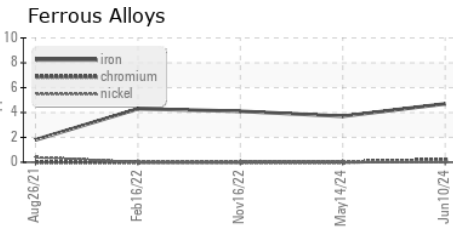
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | VLITE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | ● MILKY | ● HAZY |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | ▲ 0.2% | ▲ 0.2% |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 55 | 94.1 | 94.6 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0925210 **Received** : 17 Jun 2024
Lab Number : 06212290 **Tested** : 19 Jun 2024
Unique Number : 11085154 **Diagnosed** : 19 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: KF)

SHERWOOD CONSTRUCTION CO INC
 3219 WEST MAY ST
 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)