



OIL ANALYSIS REPORT

| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |



Machine Id
LIEBHERR R954H DV C-35 (S/N 000369-569)
Component
Left Final Drive
Fluid
CHEVRON MULTIGEAR EP5 80W90 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0899771 | WC0879505 | WC0869314 |
| Sample Date | | Client Info | | 13 Jun 2024 | 26 Dec 2023 | 01 Nov 2023 |
| Machine Age | hrs | Client Info | | 49078 | 48127 | 47859 |
| Oil Age | hrs | Client Info | | 1953 | 1002 | 254 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|-------|--------------|-------|------|
| Iron | ppm | ASTM D5185m | >2300 | 250 | 84 | 68 |
| Chromium | ppm | ASTM D5185m | >15 | 1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >10 | 2 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >135 | 13 | 2 | 1 |
| Lead | ppm | ASTM D5185m | >6 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >255 | 17 | 40 | 35 |
| Tin | ppm | ASTM D5185m | >10 | <1 | 2 | 1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | MODER | MODER | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

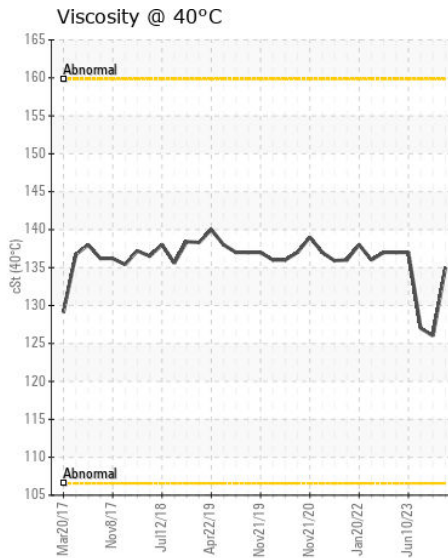
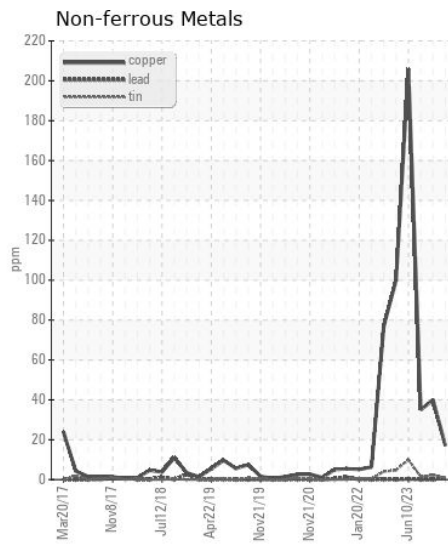
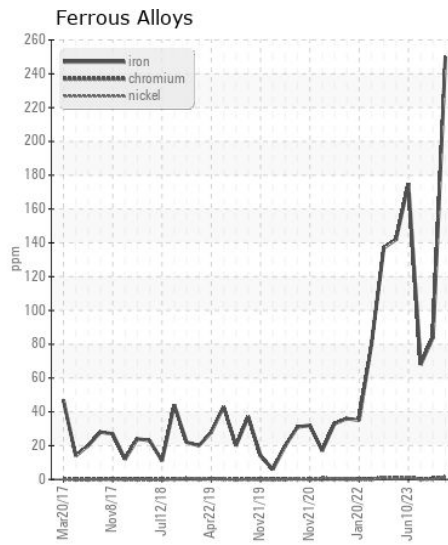
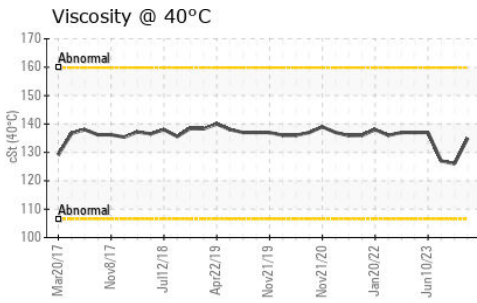
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >500 | 37 | 9 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | 5 | 0 | <1 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | LIGHT |
| 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 | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| | | | | | | |
|-------------|-----|-------------|--|--------------|-------|-------|
| Sodium | ppm | ASTM D5185m | | <1 | 2 | 2 |
| Boron | ppm | ASTM D5185m | | 25 | 26 | 33 |
| Barium | ppm | ASTM D5185m | | 1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 3 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 60 | 0 | 2 |
| Calcium | ppm | ASTM D5185m | | 324 | 52 | 35 |
| Phosphorus | ppm | ASTM D5185m | | 416 | 532 | 431 |
| Zinc | ppm | ASTM D5185m | | 14 | 0 | 13 |
| Sulfur | ppm | ASTM D5185m | | 15862 | 19597 | 17455 |
| Visc @ 40°C | cSt | ASTM D445 | | 135 | 126 | 127 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0899771

Lab Number : 06215216

Unique Number : 11088080

Test Package : CONST

Received : 19 Jun 2024

Tested : 20 Jun 2024

Diagnosed : 20 Jun 2024 - Wes Davis

FRANKLIN IRON & METAL CORP

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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)