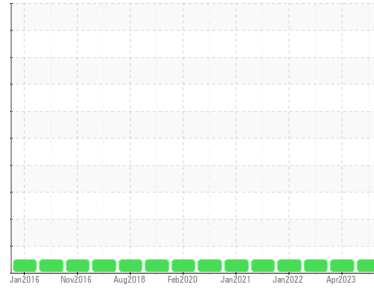




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
CTL74
 Machine Id
CTL 74 LEVELER MAIN (S/N 16-5120-0140)
 Component
Gearbox
 Fluid
Gearbox Oil (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. 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 | | RP0035316 | RP0029612 | RP0028659 |
| Sample Date | Client Info | | 02 Nov 2023 | 17 Apr 2023 | 15 Jul 2022 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|------------|------------------|--------------|----------|----------|
| PQ | ASTM D8184 | | 29 | 15 | 33 |
| Iron | ppm | ASTM D5185m >200 | 33 | 7 | 43 |
| Chromium | ppm | ASTM D5185m >15 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >15 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >25 | 2 | 2 | <1 |
| Lead | ppm | ASTM D5185m >100 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >200 | 2 | <1 | 5 |
| Tin | ppm | ASTM D5185m >25 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185m >5 | --- | --- | --- |
| 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 | 0 | <1 | 1 |
| Barium | ppm | ASTM D5185m | 19 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 3 | 1 | 1 |
| Calcium | ppm | ASTM D5185m | 19 | 34 | 11 |
| Phosphorus | ppm | ASTM D5185m | 136 | 120 | 98 |
| Zinc | ppm | ASTM D5185m | 7 | 9 | 5 |

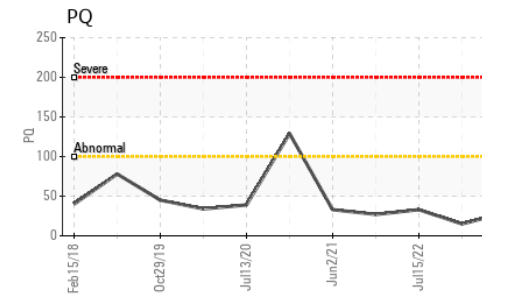
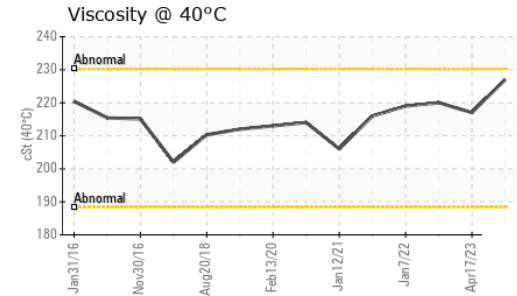
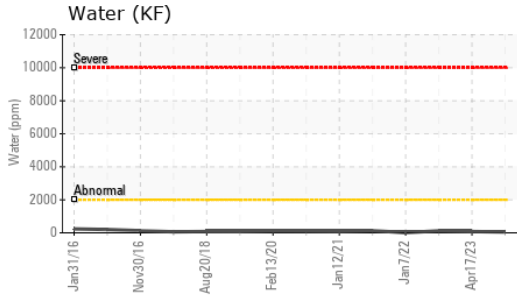
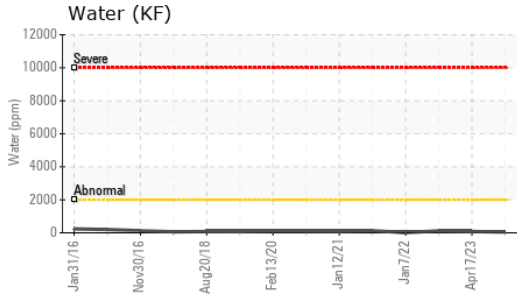
CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >50 | 2 | 7 | 5 |
| Sodium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Potassium | ppm | ASTM D5185m >20 | <1 | <1 | 2 |
| Water | % | ASTM D6304 >0.2 | 0.004 | 0.007 | 0.012 |
| ppm Water | ppm | ASTM D6304 >2000 | 48.7 | 78.1 | 120.6 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.25 | 0.27 | 0.32 |

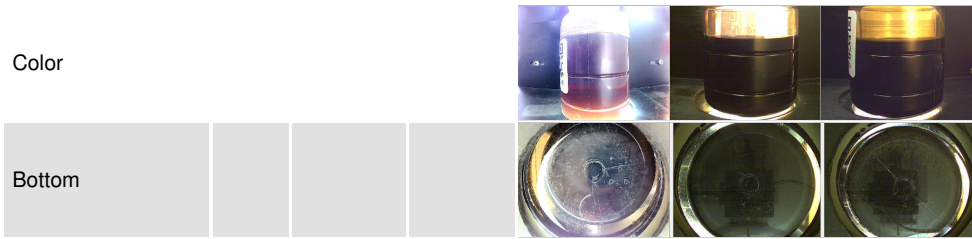
OIL ANALYSIS REPORT



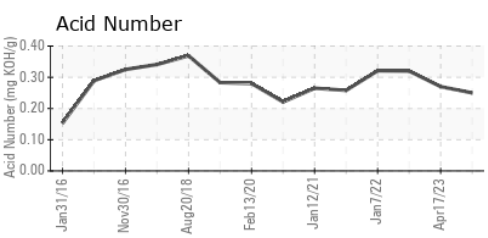
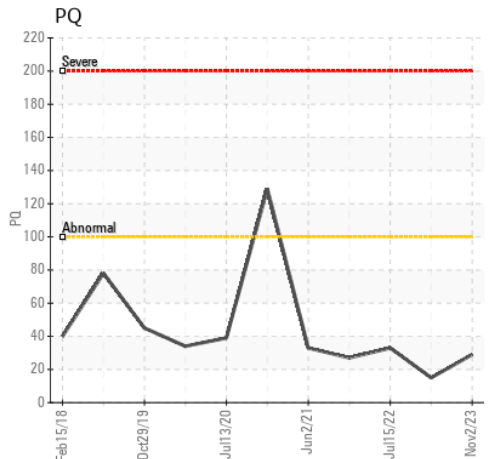
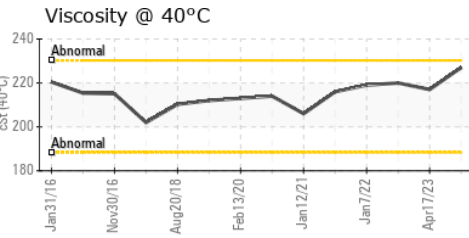
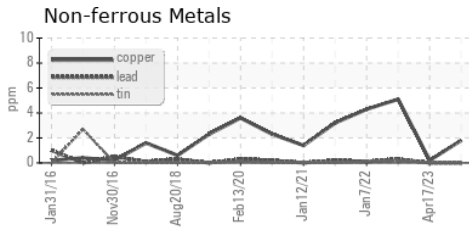
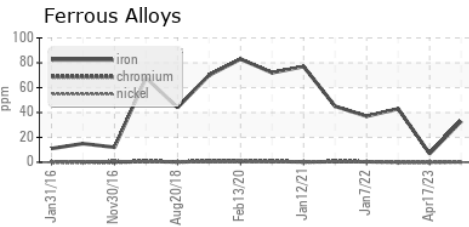
| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|--------------|----------|-------|
| White Metal | scalar | *Visual | NONE | LIGHT | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *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 | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 227 | 217 | 220 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0035316 **Received** : 03 Nov 2023
Lab Number : **05998071** **Diagnosed** : 06 Nov 2023
Unique Number : 10726431 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: PQ)

OUTOKUMPU STAINLESS USA
 HWY 43 N
 CALVERT, AL
 US 36513
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 Mario.johnson@outokumpu.com
 T: (251)321-4105
 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)