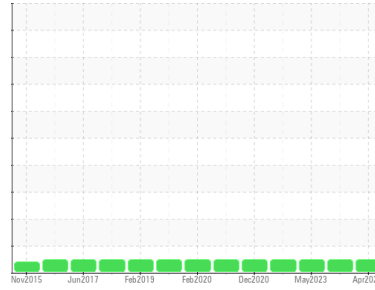




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**DSL 100 [C-SP2551035]**

Machine Id

**RIETSCHIE 2581069 - GINKGO BIOWORKS**

Component

**Compressor**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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 |             | <b>UCH06160980</b> | UCH06018260 | UCH05856754 |
| Sample Date   | Client Info |             | <b>16 Apr 2024</b> | 14 Nov 2023 | 16 May 2023 |
| Machine Age   | hrs         | Client Info | <b>2636</b>        | 2915        | 2298        |
| Oil Age       | hrs         | Client Info | <b>338</b>         | 380         | 100         |
| Oil Changed   | Client Info |             | <b>Changed</b>     | Not Changd  | Changed     |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## CONTAMINATION

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1       | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >50 | <b>0</b>     | <1       | 0        |
| Chromium | ppm    | ASTM D5185m >10 | <b>0</b>     | <1       | 0        |
| Nickel   | ppm    | ASTM D5185m     | <b>0</b>     | <1       | 0        |
| Titanium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Silver   | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >25 | <b>&lt;1</b> | <1       | <1       |
| Lead     | ppm    | ASTM D5185m >25 | <b>0</b>     | <1       | 0        |
| Copper   | ppm    | ASTM D5185m >50 | <b>0</b>     | <1       | 0        |
| Tin      | ppm    | ASTM D5185m >15 | <b>0</b>     | <1       | 0        |
| Vanadium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m     | <b>0</b>     | <1       | 0        |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 5.9  | <b>0</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m 0.2  | <b>0</b>     | <1       | 0        |
| Molybdenum | ppm    | ASTM D5185m 0    | <b>0</b>     | <1       | 0        |
| Manganese  | ppm    | ASTM D5185m 1.2  | <b>0</b>     | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 0    | <b>0</b>     | <1       | 0        |
| Calcium    | ppm    | ASTM D5185m 0.1  | <b>0</b>     | <1       | 0        |
| Phosphorus | ppm    | ASTM D5185m 182  | <b>89</b>    | 78       | 89       |
| Zinc       | ppm    | ASTM D5185m 0.1  | <b>&lt;1</b> | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m 1117 | <b>144</b>   | 0        | 313      |

## CONTAMINANTS

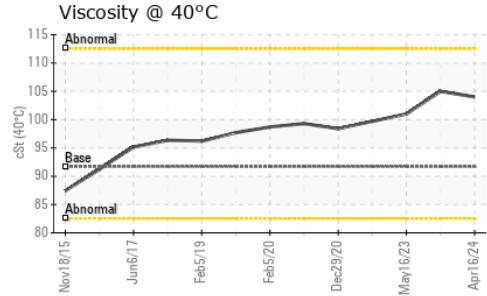
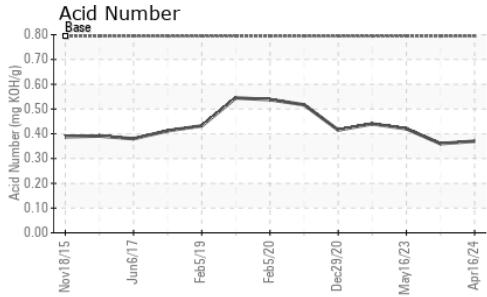
|           | method | limit/base      | current      | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>&lt;1</b> | <1       | <1       |
| Sodium    | ppm    | ASTM D5185m     | <b>2</b>     | 0        | 0        |
| Potassium | ppm    | ASTM D5185m >20 | <b>&lt;1</b> | <1       | 0        |

## FLUID DEGRADATION

|                  | method   | limit/base       | current     | history1 | history2 |
|------------------|----------|------------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.794 | <b>0.37</b> | 0.36     | 0.42     |



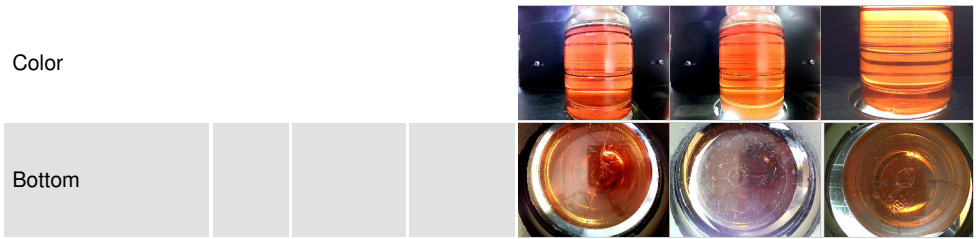
# OIL ANALYSIS REPORT



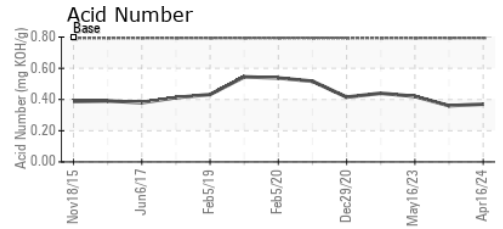
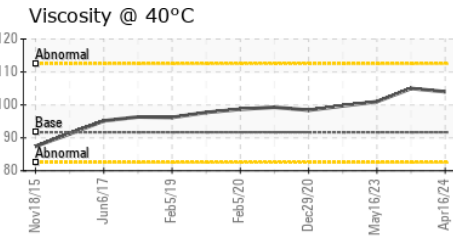
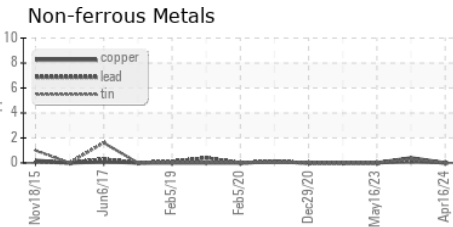
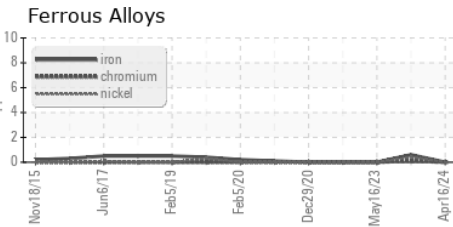
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | LIGHT    |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | 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  | 91.7    | 104      | 105      |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : UCH06160980      **Received** : 25 Apr 2024  
**Lab Number** : 06160980      **Tested** : 26 Apr 2024  
**Unique Number** : 10996403      **Diagnosed** : 29 Apr 2024 - Don Baldrige  
**Test Package** : IND 2

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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)