



# OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id  
**KING 15W40 BIG PLUS CK4**

Component  
**New (Unused) Oil**  
Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

### ● Recommendation

This is a baseline read-out on the submitted sample.

### ● Fluid Condition

The oil viscosity is lower than typical, possibly indicating lighter grade oil.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>WC0913431</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>15 Apr 2024</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | ---      | ---      |
| Sample Status |             |             | <b>ATTENTION</b>   | ---      | ---      |

## WEAR METALS

|          | method | limit/base  | current      | history1 | history2 |
|----------|--------|-------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m | <b>&lt;1</b> | ---      | ---      |
| Chromium | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Nickel   | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Titanium | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Silver   | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Aluminum | ppm    | ASTM D5185m | <b>2</b>     | ---      | ---      |
| Lead     | ppm    | ASTM D5185m | <b>&lt;1</b> | ---      | ---      |
| Copper   | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Tin      | ppm    | ASTM D5185m | <b>&lt;1</b> | ---      | ---      |
| Vanadium | ppm    | ASTM D5185m | <b>&lt;1</b> | ---      | ---      |
| Cadmium  | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base  | current     | history1 | history2 |
|------------|--------|-------------|-------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>426</b>  | ---      | ---      |
| Barium     | ppm    | ASTM D5185m | <b>0</b>    | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185m | <b>124</b>  | ---      | ---      |
| Manganese  | ppm    | ASTM D5185m | <b>0</b>    | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185m | <b>534</b>  | ---      | ---      |
| Calcium    | ppm    | ASTM D5185m | <b>1442</b> | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185m | <b>880</b>  | ---      | ---      |
| Zinc       | ppm    | ASTM D5185m | <b>1030</b> | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185m | <b>3516</b> | ---      | ---      |

## CONTAMINANTS

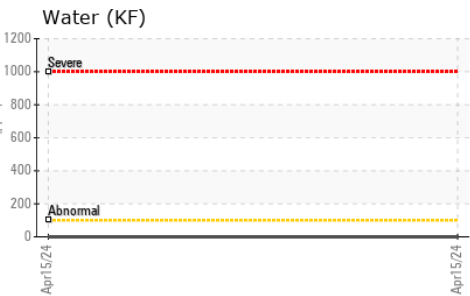
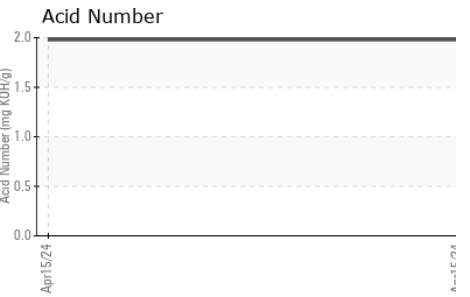
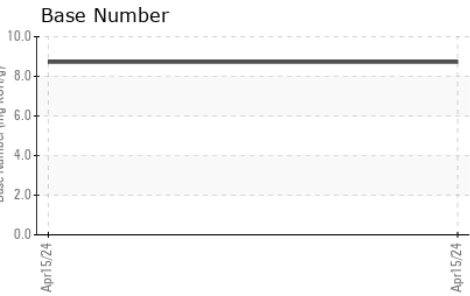
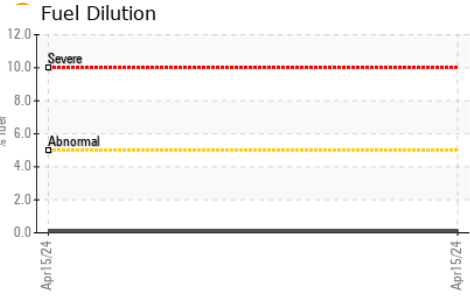
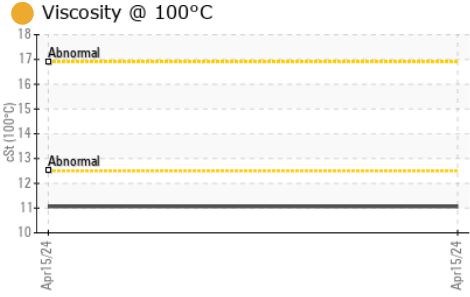
|           | method | limit/base  | current       | history1 | history2 |
|-----------|--------|-------------|---------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m | <b>8</b>      | ---      | ---      |
| Sodium    | ppm    | ASTM D5185m | <b>0</b>      | ---      | ---      |
| Potassium | ppm    | ASTM D5185m | <b>&gt;20</b> | ---      | ---      |
| Fuel      | %      | ASTM D3524  | <b>0.1</b>    | ---      | ---      |
| Water     | %      | ASTM D6304  | <b>NEG</b>    | ---      | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>1.98</b> | ---      | ---      |
| Base Number (BN) | mg KOH/g | ASTM D2896 | <b>8.72</b> | ---      | ---      |



# OIL ANALYSIS REPORT



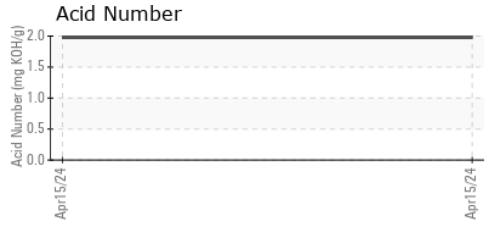
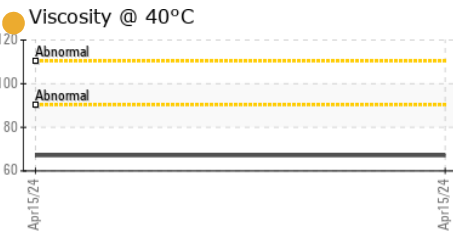
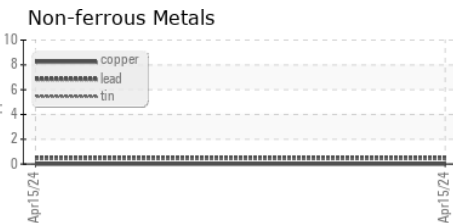
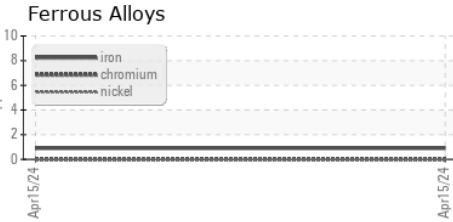
| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE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

| FLUID PROPERTIES     | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C          | cSt    | ASTM D445  | ● 67.1  | ---      | ---      |
| Visc @ 100°C         | cSt    | ASTM D445  | ● 11.06 | ---      | ---      |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 157     | ---      | ---      |

### SAMPLE IMAGES

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

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0913431      **Received** : 18 Apr 2024  
**Lab Number** : 06153861      **Tested** : 23 Apr 2024  
**Unique Number** : 10989284      **Diagnosed** : 23 Apr 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: FT-IR, FuelDilution, ICP-NewOil, KF, KV100, PercentFuel, PrtCount, TBN, VI )

**EK EQUIPMENT LLC**  
 392 ELWOOD RD  
 FORT PLAIN, NY  
 US 13339  
 Contact: ELAM  
 EKEQUIPMENT@STARLIGHTPRINT.COM

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)