# PROBLEM SUMMARY

Sample Rating Trend

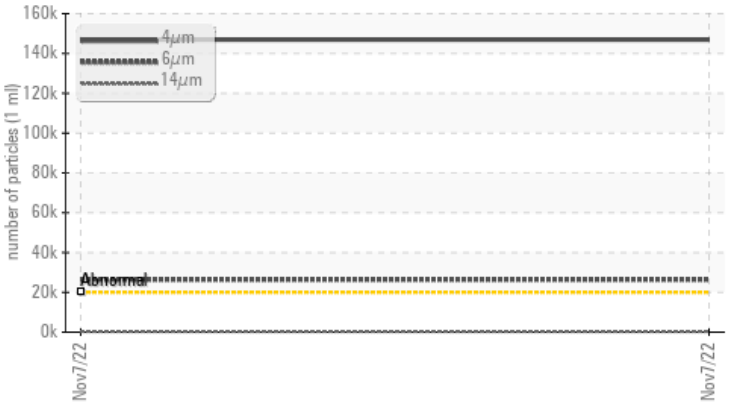

**WEAR**

Machine Id
**ADS 2**
Component
**Gearbox**
Fluid
**SUMMIT SH 7150 (3 GAL)**

## COMPONENT CONDITION SUMMARY

Ferrous Alloys


Particle Trend




## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ABNORMAL** | --- | --- |
| Iron | ppm | ASTM D5185m | >200 | ▲ **314** | --- | --- |
| Particles >4µm | | ASTM D7647 | >20000 | ▲ **146897** | --- | --- |
| Particles >6µm | | ASTM D7647 | >5000 | ▲ **26436** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | ▲ **24/22/16** | --- | --- |

**Customer Id:** FLAMONNC
**Sample No.:** WC0668060
**Lab Number:** 05690174
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Filter | MISSED | Nov 12 2022 | ? | We recommend you service the filters on this component if applicable. |

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend


**WEAR**

Machine Id
## ADS 2
Component
**Gearbox**
Fluid
**SUMMIT SH 7150 (3 GAL)**

## DIAGNOSIS

**Recommendation**
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

**Wear**
The iron level is abnormal. All other component wear rates are normal.

**Contamination**
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0668060** | --- | --- |
| Sample Date | | Client Info | | **07 Nov 2022** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **Not Changd** | --- | --- |
| Sample Status | | | | **ABNORMAL** | --- | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.2 | **NEG** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | ▲ **314** | --- | --- |
| Chromium | ppm | ASTM D5185m | >15 | **4** | --- | --- |
| Nickel | ppm | ASTM D5185m | >15 | **<1** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **<1** | --- | --- |
| Lead | ppm | ASTM D5185m | >100 | **<1** | --- | --- |
| Copper | ppm | ASTM D5185m | >200 | **<1** | --- | --- |
| Tin | ppm | ASTM D5185m | >25 | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | --- | --- |
| Barium | ppm | ASTM D5185m | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **<1** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **2** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **23** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **692** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **3** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **1107** | --- | --- |

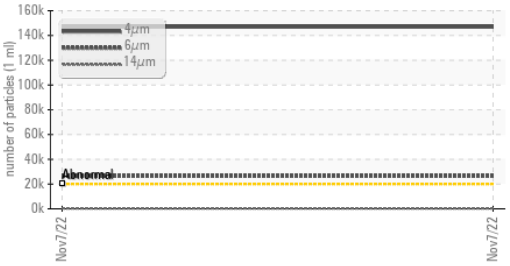
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **5** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **11** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **0** | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >20000 | ▲ **146897** | --- | --- |
| Particles >6µm | | ASTM D7647 | >5000 | ▲ **26436** | --- | --- |
| Particles >14µm | | ASTM D7647 | >640 | **323** | --- | --- |
| Particles >21µm | | ASTM D7647 | >160 | **44** | --- | --- |
| Particles >38µm | | ASTM D7647 | >40 | **1** | --- | --- |
| Particles >71µm | | ASTM D7647 | >10 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | ▲ **24/22/16** | --- | --- |

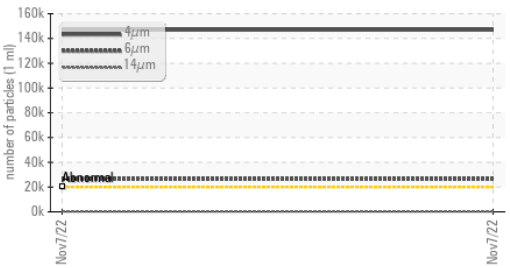
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **1.24** | --- | --- |

# OIL ANALYSIS REPORT

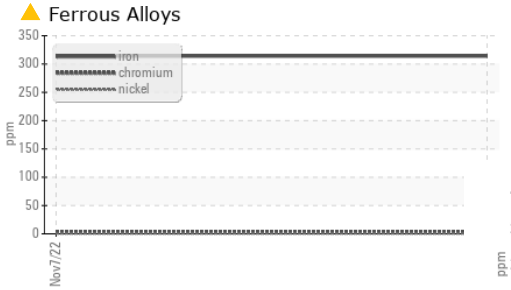
Particle Trend



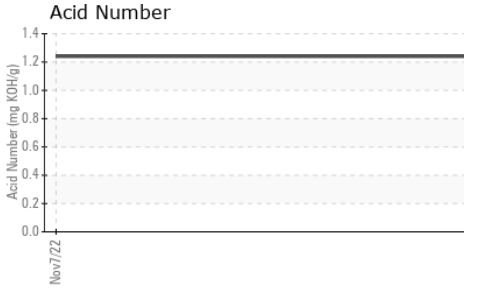

Particle Trend



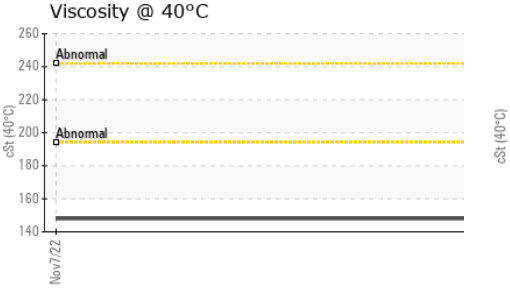

Ferrous Alloys




Acid Number

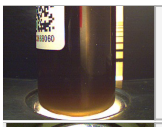
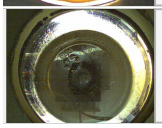



Viscosity @ 40°C



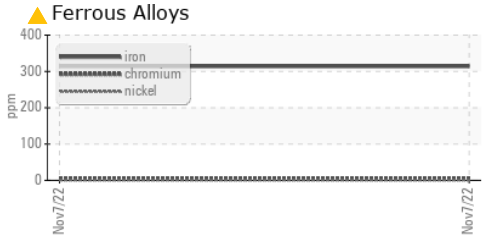

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt |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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **148** | --- | --- |

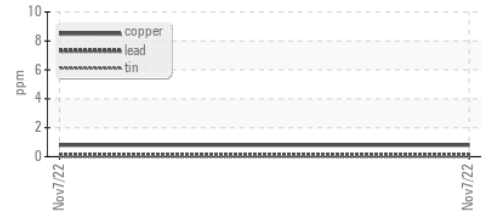
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

## GRAPHS

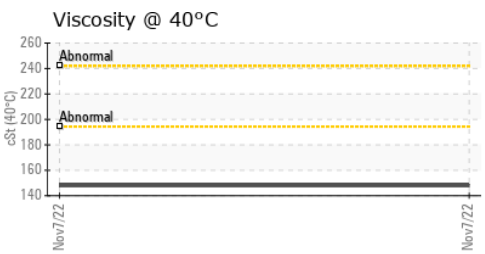
Ferrous Alloys



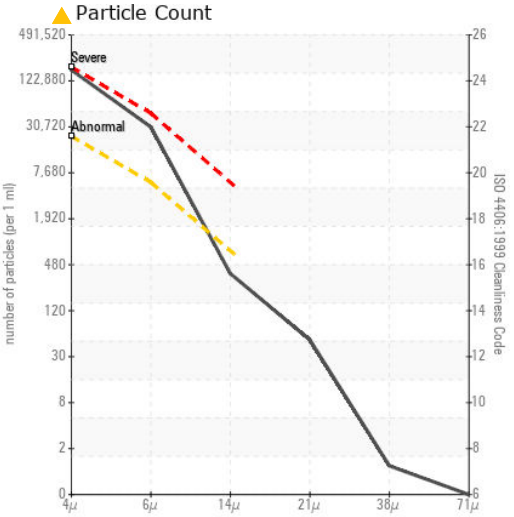

Non-ferrous Metals



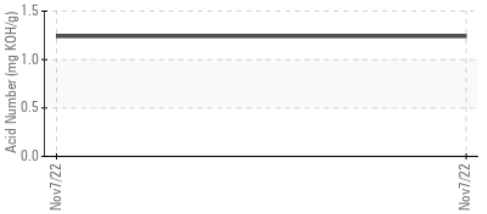

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0668060 **Received** : 10 Nov 2022
**Lab Number** : 05690174 **Diagnosed** : 12 Nov 2022
**Unique Number** : 10214747 **Diagnostician** : Angela Borella
**Test Package** : IND 2 ( Additional Tests: PrtCount )

*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)*

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