

# PROBLEM SUMMARY

Sample Rating Trend

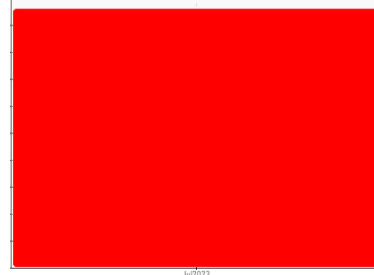
DIRT



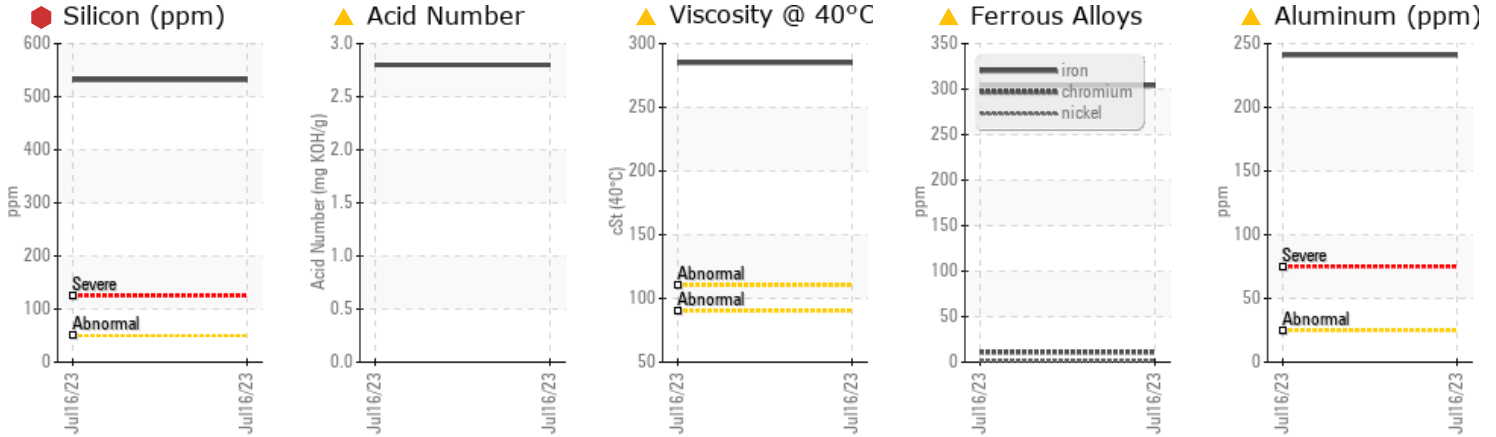
Machine Id  
**15 TON CRANE**

Component  
**Hoisting Gearbox**

Fluid  
**SCHAEFFER MOLY FULL SYN GEAR OIL (--- GAL)**



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	SEVERE	---	---
Iron ppm ASTM D5185m >150	▲ 304	---	---
Chromium ppm ASTM D5185m >10	▲ 11	---	---
Titanium ppm ASTM D5185m	▲ 234	---	---
Aluminum ppm ASTM D5185m >25	▲ 241	---	---
Silicon ppm ASTM D5185m >50	● 532	---	---
Acid Number (AN) mg KOH/g ASTM D8045	▲ 2.80	---	---
Visc @ 40°C cSt ASTM D445	▲ 285	---	---

Customer Id: NATEAS  
Sample No.: PCA0100294  
Lab Number: 05900109  
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](mailto:angela.borella@wearcheckusa.com)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

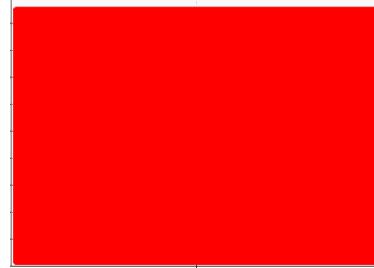
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

## HISTORICAL DIAGNOSIS

Machine Id  
**15 TON CRANE**

Component  
**Hoisting Gearbox**

Fluid  
**SCHAEFFER MOLY FULL SYN GEAR OIL (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.

### Wear

Gear wear is indicated.

### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The AN level is above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0100294</b>	---	---
Sample Date	Client Info		<b>16 Jul 2023</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>SEVERE</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>▲ 304</b>	---	---
Chromium	ppm	ASTM D5185m >10	<b>▲ 11</b>	---	---
Nickel	ppm	ASTM D5185m >10	<b>1</b>	---	---
Titanium	ppm	ASTM D5185m	<b>▲ 234</b>	---	---
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m >25	<b>▲ 241</b>	---	---
Lead	ppm	ASTM D5185m >100	<b>4</b>	---	---
Copper	ppm	ASTM D5185m >50	<b>46</b>	---	---
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>3</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>83</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>695</b>	---	---
Manganese	ppm	ASTM D5185m	<b>3</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>53</b>	---	---
Calcium	ppm	ASTM D5185m	<b>51</b>	---	---
Phosphorus	ppm	ASTM D5185m	<b>1410</b>	---	---
Zinc	ppm	ASTM D5185m	<b>711</b>	---	---
Sulfur	ppm	ASTM D5185m	<b>25056</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>● 532</b>	---	---
Sodium	ppm	ASTM D5185m	<b>14</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>9</b>	---	---

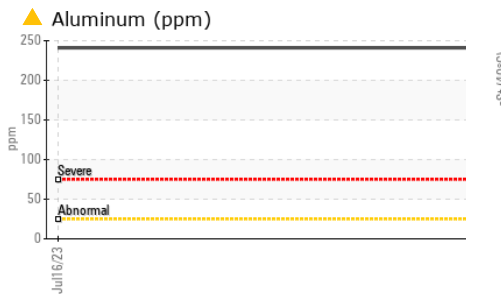
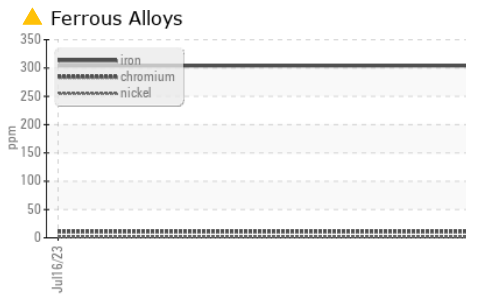
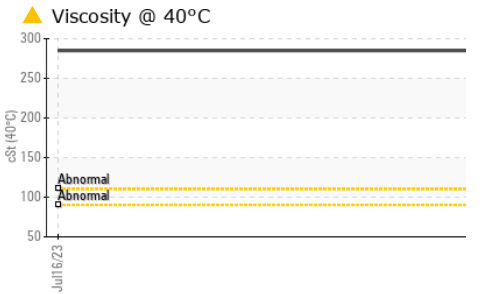
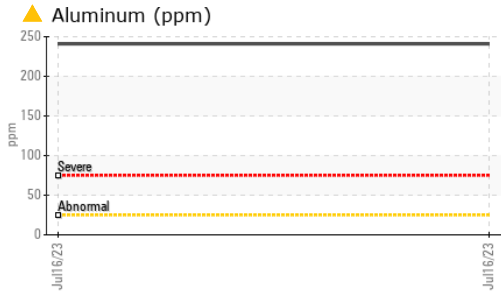
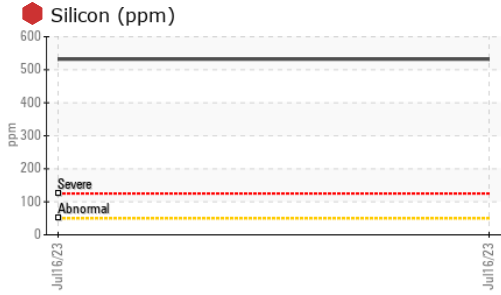
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>▲ 2.80</b>	---	---

## VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>MODER</b>	---	---
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual >0.1	<b>NEG</b>	---	---
Free Water	scalar	*Visual	<b>NEG</b>	---	---

# OIL ANALYSIS REPORT

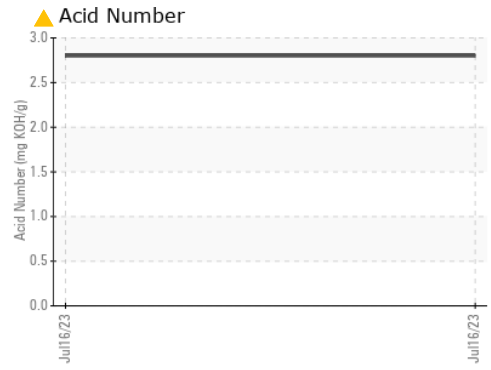
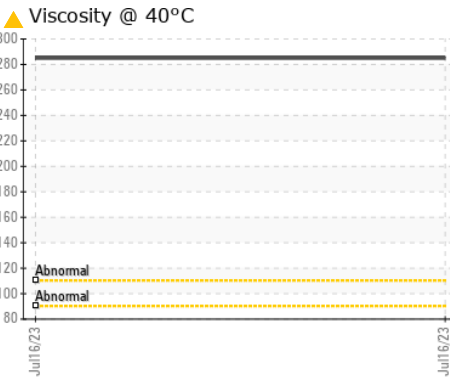
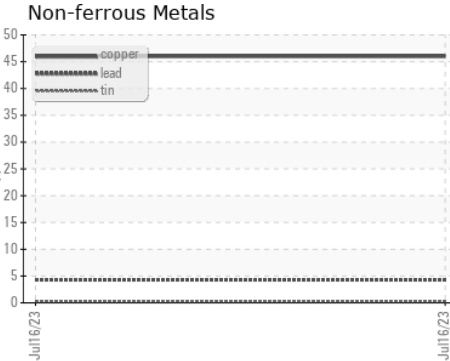
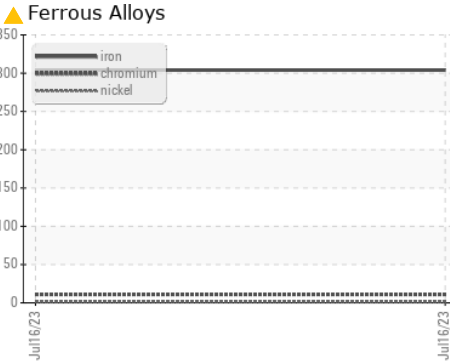


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		▲ 285	---	---

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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0100294 **Received** : 17 Jul 2023  
**Lab Number** : 05900109 **Diagnosed** : 18 Jul 2023  
**Unique Number** : 10561465 **Diagnostician** : Angela Borella  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**NATIONAL MATERIAL PROCESSING**  
 4506 CLINE AVE  
 EAST CHICAGO, IN  
 US 46312  
 Contact: RYAN CANO  
 rcano@nmlp.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)

T:  
F: