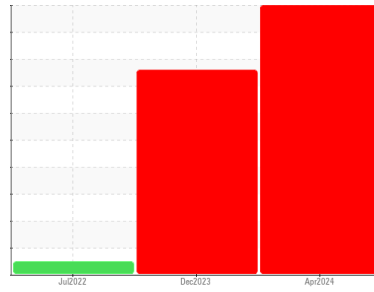




# PROBLEM SUMMARY

Sample Rating Trend



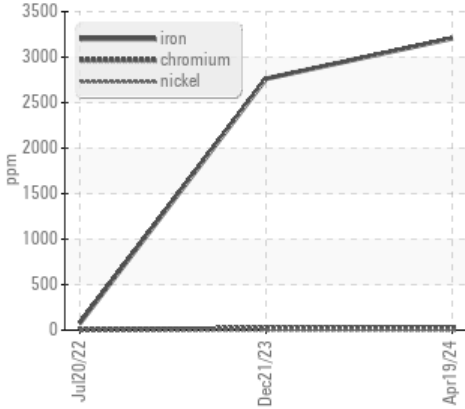
**WEAR**



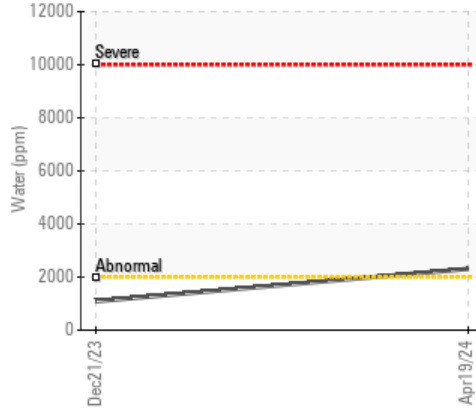
Machine Id  
**040-R0006**  
 Component  
**Right Final Drive**  
 Fluid  
**SCHAEFFER SCHAEFFER 293 MOLY 75W90 (2 QTS)**

## COMPONENT CONDITION SUMMARY

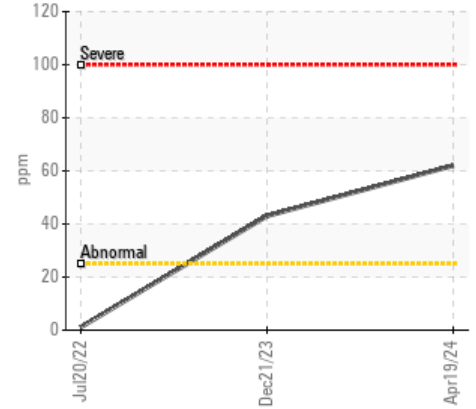
▲ Ferrous Alloys



▲ Water (KF)



▲ Aluminum (ppm)



## RECOMMENDATION

The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>500	▲ 3206	▲ 2762	74
Chromium	ppm	ASTM D5185m	>10	▲ 32	▲ 22	2
Aluminum	ppm	ASTM D5185m	>25	▲ 62	▲ 43	1
Water	%	ASTM D6304	>0.2	▲ 0.231	0.109	---
ppm Water	ppm	ASTM D6304	>2000	▲ 2310	1090	---

Customer Id: AECCHATN  
 Sample No.: WC0903846  
 Lab Number: 06159496  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

WEAR



**21 Dec 2023 Diag: Sean Felton**

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The aluminum level is abnormal. The iron level is severe. The chromium level is abnormal. Gear wear is indicated. The water content is negligible. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report



NORMAL



**20 Jul 2022 Diag: Don Baldrige**

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Confirm oil type. The condition of the oil is acceptable for the time in service.

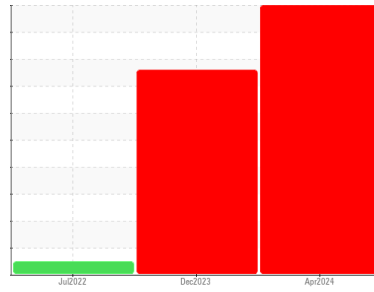
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id  
**040-R0006**

Component  
**Right Final Drive**

Fluid  
**SCHAEFFER SCHAEFFER 293 MOLY 75W90 (2 QTS)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### Wear

Gear wear is indicated.

### Contamination

There is a light concentration of water present in the oil.

### Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0903846</b>	WC0868438	WC0698081
Sample Date	Client Info		<b>19 Apr 2024</b>	21 Dec 2023	20 Jul 2022
Machine Age	hrs	Client Info	<b>6945</b>	6459	2244
Oil Age	hrs	Client Info	<b>6631</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>SEVERE</b>	SEVERE	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>▲ 3206</b>	▲ 2762	74
Chromium	ppm	ASTM D5185m >10	<b>▲ 32</b>	▲ 22	2
Nickel	ppm	ASTM D5185m >10	<b>1</b>	1	0
Titanium	ppm	ASTM D5185m	<b>1</b>	1	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>▲ 62</b>	▲ 43	1
Lead	ppm	ASTM D5185m >25	<b>0</b>	1	<1
Copper	ppm	ASTM D5185m >50	<b>11</b>	13	2
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>99</b>	65	258
Barium	ppm	ASTM D5185m	<b>12</b>	1	24
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	2	2
Manganese	ppm	ASTM D5185m	<b>23</b>	18	2
Magnesium	ppm	ASTM D5185m	<b>12</b>	5	<1
Calcium	ppm	ASTM D5185m	<b>132</b>	78	17
Phosphorus	ppm	ASTM D5185m	<b>1261</b>	1071	1227
Zinc	ppm	ASTM D5185m	<b>97</b>	74	57
Sulfur	ppm	ASTM D5185m	<b>28725</b>	24012	25077

## CONTAMINANTS

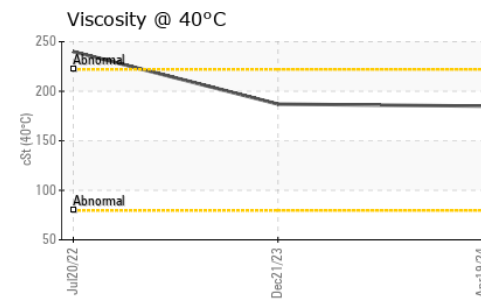
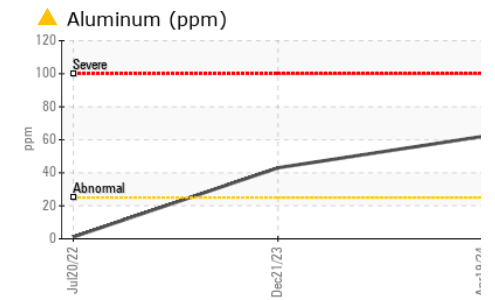
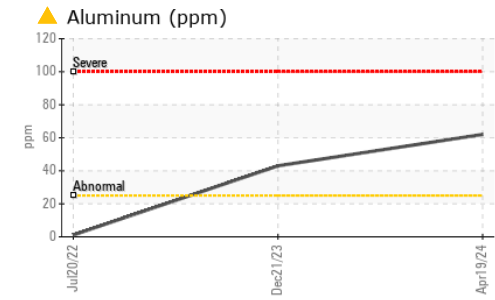
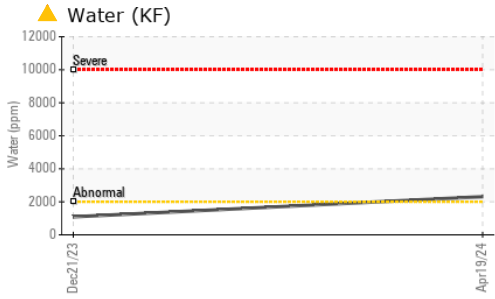
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>59</b>	25	3
Sodium	ppm	ASTM D5185m	<b>27</b>	20	13
Potassium	ppm	ASTM D5185m >20	<b>35</b>	24	9
Water	%	ASTM D6304 >0.2	<b>▲ 0.231</b>	0.109	---
ppm Water	ppm	ASTM D6304 >2000	<b>▲ 2310</b>	1090	---

## VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	<b>0.2%</b>	0.2%	NEG
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG



# OIL ANALYSIS REPORT

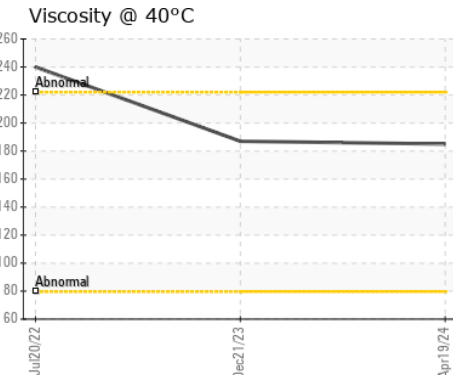
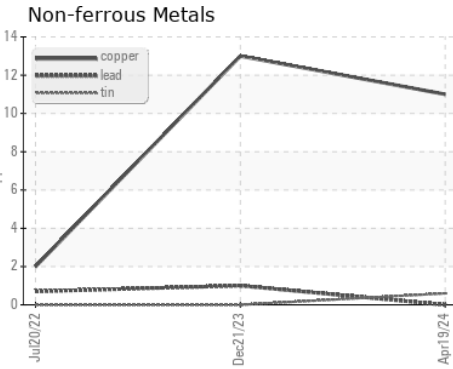
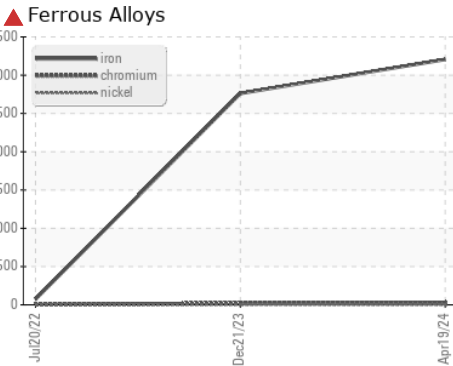


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		<b>185</b>	187	240

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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0903846      **Received** : 24 Apr 2024  
**Lab Number** : 06159496      **Tested** : 25 Apr 2024  
**Unique Number** : 10994919      **Diagnosed** : 26 Apr 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: KF )

**SHIMMICK CONSTRUCTION**  
 5535 TRAILHEAD DRIVE  
 CHATTANOOGA, TN  
 US 37415  
 Contact: DANIEL LISELLA  
 daniel.lisella@shimmick.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: