



# OIL ANALYSIS REPORT

WEAR	<b>SEVERE</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**016-0114**  
Component  
**Front Differential**  
Fluid  
**SCHAEFFER SCHAEFFER 293 MOLY 75W90 (--- GAL)**

## RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0904077</b>	WC0815202	WC0815124
Sample Date		Client Info		<b>14 Feb 2024</b>	18 Sep 2023	06 Sep 2023
Machine Age	hrs	Client Info		<b>12374</b>	11460	11388
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

## WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>▲ 2888</b>	▲ 2877	▲ 2793
Chromium	ppm	ASTM D5185m	>10	<b>8</b>	8	8
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	4	4
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>100	<b>3</b>	3	4
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

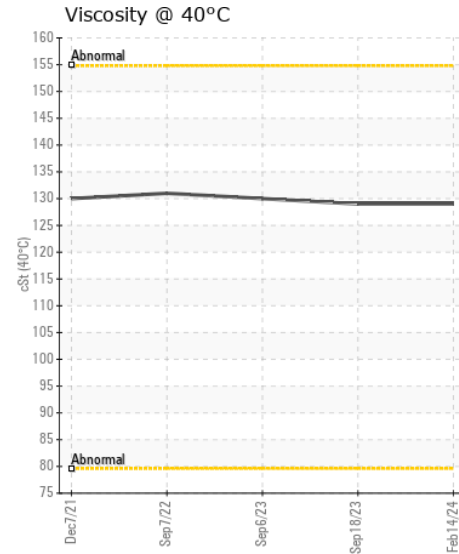
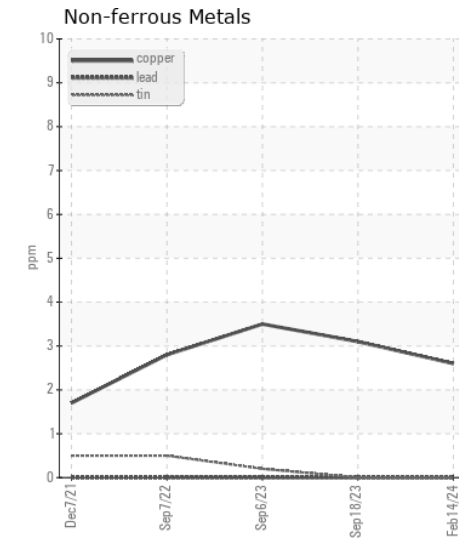
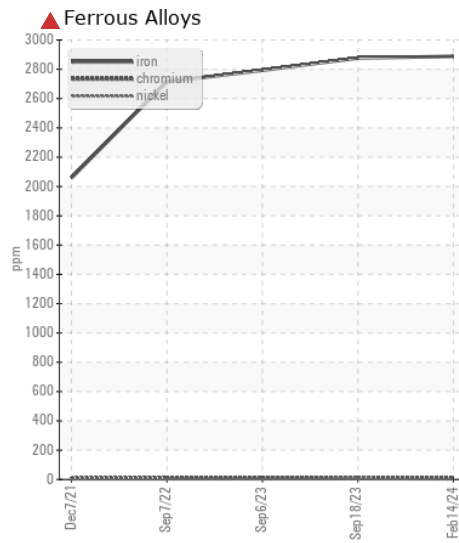
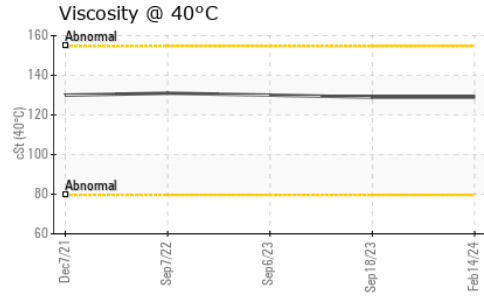
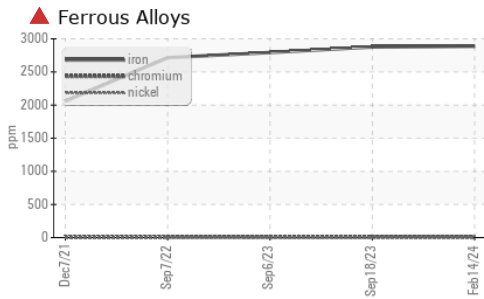
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>24</b>	24	24
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>MODER</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	>.2	<b>NEG</b>	NEG	0.2%

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>4</b>	2	5
Boron	ppm	ASTM D5185m		<b>83</b>	102	109
Barium	ppm	ASTM D5185m		<b>7</b>	8	6
Molybdenum	ppm	ASTM D5185m		<b>362</b>	349	337
Manganese	ppm	ASTM D5185m		<b>26</b>	28	26
Magnesium	ppm	ASTM D5185m		<b>3</b>	2	4
Calcium	ppm	ASTM D5185m		<b>114</b>	111	122
Phosphorus	ppm	ASTM D5185m		<b>1376</b>	1323	1398
Zinc	ppm	ASTM D5185m		<b>36</b>	46	63
Sulfur	ppm	ASTM D5185m		<b>21559</b>	23032	24244
Visc @ 40°C	cSt	ASTM D445		<b>129</b>	129	130



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0904077

**Lab Number** : 06105536

**Unique Number** : 10903766

**Test Package** : CONST

**Received** : 29 Feb 2024

**Tested** : 01 Mar 2024

**Diagnosed** : 04 Mar 2024 - Don Baldrige

**SHIMMICK CONSTRUCTION**

5535 TRAILHEAD DRIVE

CHATTANOOGA, TN

US 37415

Contact: DANIEL LISELLA

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T:

F:

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)