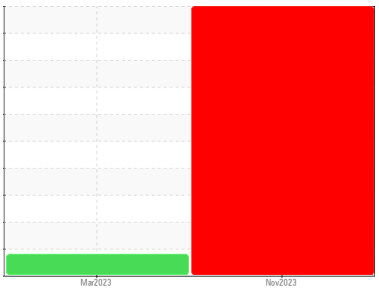
PROBLEM SUMMARY

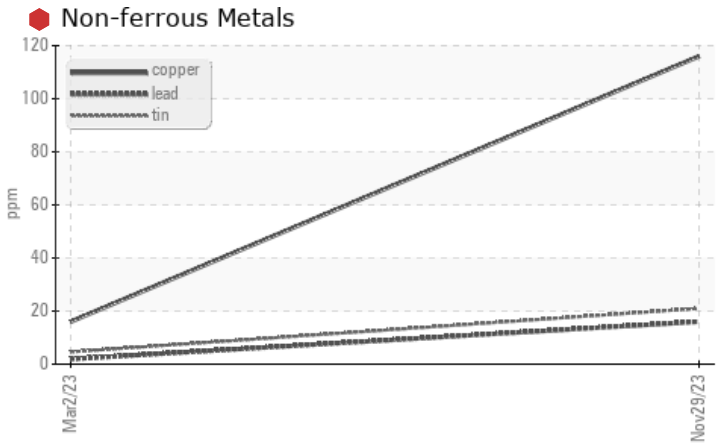
Sample Rating Trend

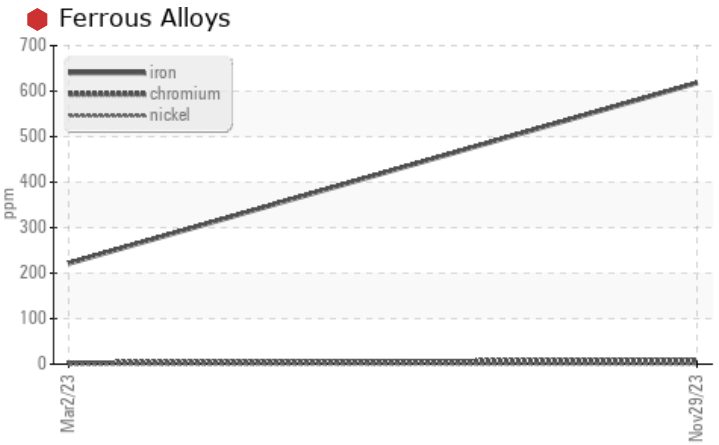


VISUAL METAL

Machine Id
DEN_MLU3
Component
Outboard Pump
Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY





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.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	ABNORMAL	---
Iron	ppm	ASTM D5185m	>90	**618**	221	---
Chromium	ppm	ASTM D5185m	>5	**9**	3	---
Lead	ppm	ASTM D5185m	>12	**16**	2	---
Copper	ppm	ASTM D5185m	>30	**116**	16	---
Tin	ppm	ASTM D5185m	>9	**21**	5	---
White Metal	scalar	*Visual	NONE	**MODER**	LIGHT	---

Customer Id: ENENEW
Sample No.: RP0036218
Lab Number: 06026570
Test Package: IND 2

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

To change component or sample information:
Customer Service +1 1-800-237-1369
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.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

02 Mar 2023 Diag: Don Baldridge

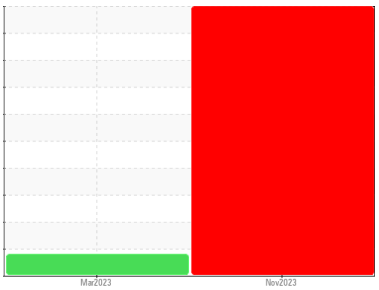
WEAR

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.The iron level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Machine Id
DEN_MLU3
Component
Outboard Pump
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

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.

Wear
The iron level is severe. The chromium level is abnormal. Moderate concentration of visible metal present. Bearing and/or bushing wear is indicated.

Contamination
The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid. 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		**RP0036218**	RP0032829	---
Sample Date		Client Info		**29 Nov 2023**	02 Mar 2023	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**SEVERE**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	⬢ **618**	▲ 221	---
Chromium	ppm	ASTM D5185m	>5	▲ **9**	3	---
Nickel	ppm	ASTM D5185m	>5	**<1**	0	---
Titanium	ppm	ASTM D5185m	>3	**<1**	0	---
Silver	ppm	ASTM D5185m	>3	**0**	0	---
Aluminum	ppm	ASTM D5185m	>7	**3**	2	---
Lead	ppm	ASTM D5185m	>12	▲ **16**	2	---
Copper	ppm	ASTM D5185m	>30	⬢ **116**	16	---
Tin	ppm	ASTM D5185m	>9	⬢ **21**	5	---
Vanadium	ppm	ASTM D5185m		**<1**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	---
Barium	ppm	ASTM D5185m		**0**	0	---
Molybdenum	ppm	ASTM D5185m		**0**	0	---
Manganese	ppm	ASTM D5185m		**2**	1	---
Magnesium	ppm	ASTM D5185m		**64**	81	---
Calcium	ppm	ASTM D5185m		**0**	2	---
Phosphorus	ppm	ASTM D5185m		**0**	0	---
Zinc	ppm	ASTM D5185m		**0**	0	---

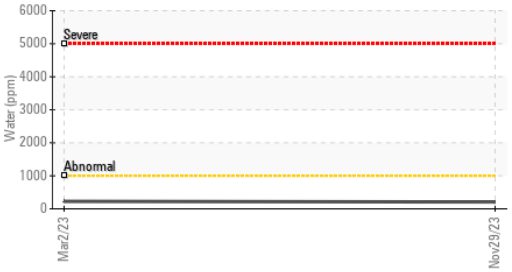
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**5**	4	---
Sodium	ppm	ASTM D5185m		**3**	2	---
Potassium	ppm	ASTM D5185m	>20	**0**	0	---
Water	%	ASTM D6304	>.1	**0.020**	0.022	---
ppm Water	ppm	ASTM D6304	>1000	**208**	226.2	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.32**	0.33	---

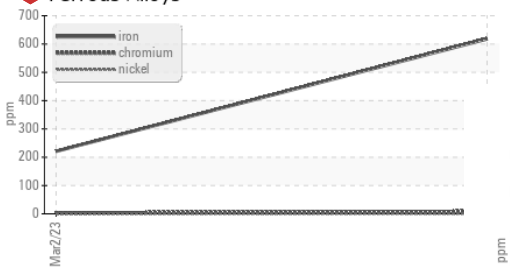
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	⬢ **MODER**	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	VLITE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>.1	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

OIL ANALYSIS REPORT

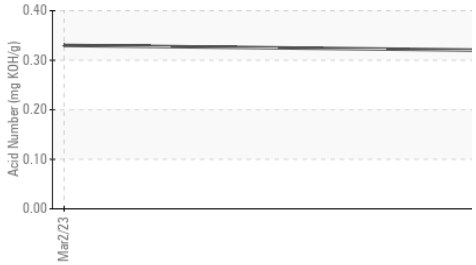
Water (KF)



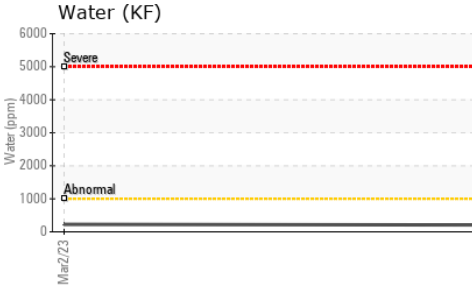
Ferrous Alloys



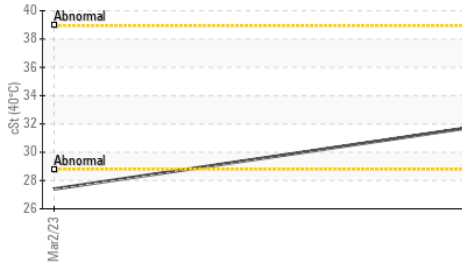
Acid Number



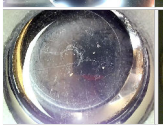
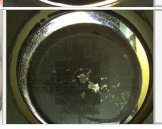
Water (KF)



Viscosity @ 40°C

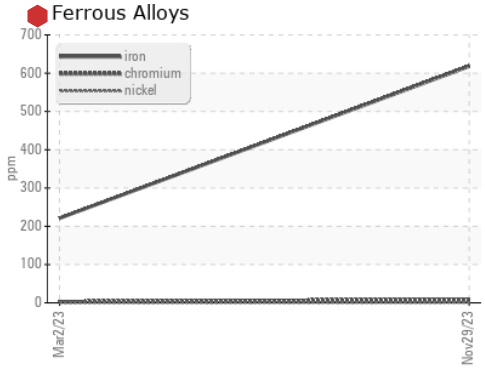


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**31.9**	27.4	---

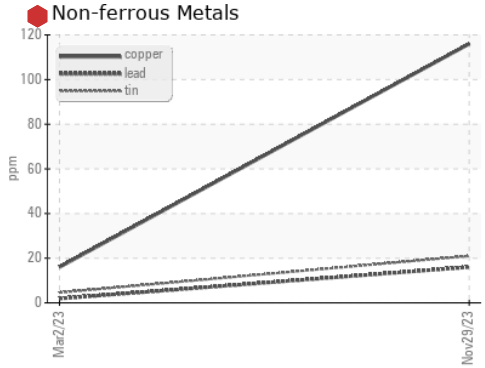
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

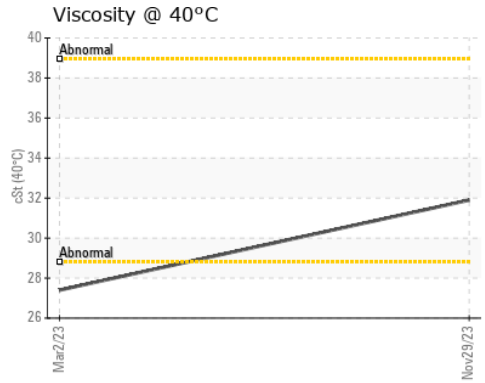
Ferrous Alloys



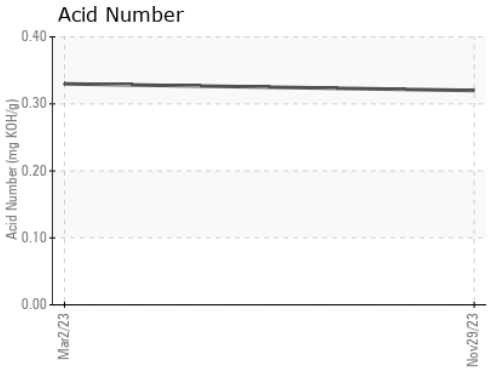
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0036218
Lab Number : 06026570
Unique Number : 10776361
Test Package : IND 2

Received : 06 Dec 2023
Diagnosed : 08 Dec 2023
Diagnostician : Jonathan Hester

ENERGY TRANSFER - DENVER STATION
1131 BROADWAY AVE
NEW JOHNSONVILLE, TN
US 37134
Contact: Service Manager

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: