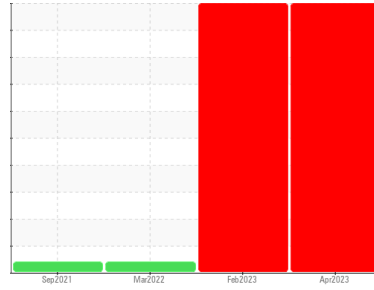




PROBLEM SUMMARY

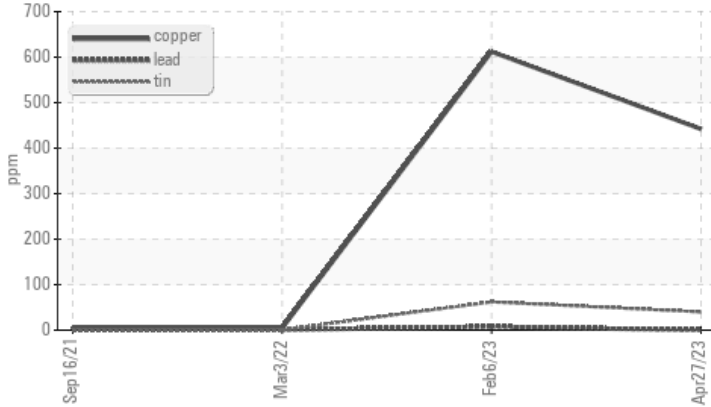
Sample Rating Trend



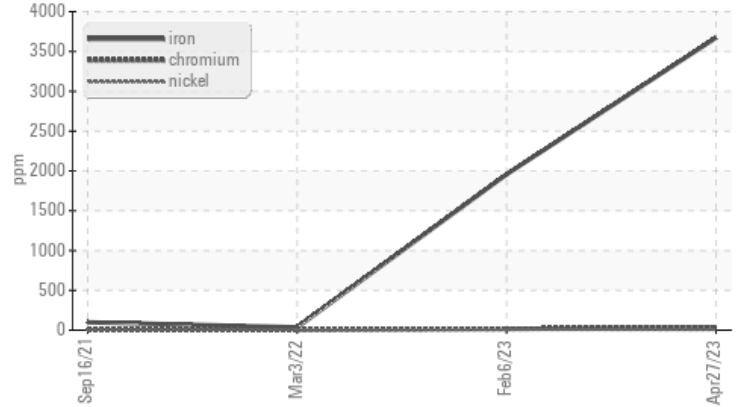
Area
Deleted Component [172251]
 Machine Id
HUB CITY 322
 Component
Gearbox
 Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY

Non-ferrous Metals



Ferrous Alloys



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	SEVERE	ATTENTION
Iron	ppm	ASTM D5185m	>200	SEVERE 3673	1957	36
Chromium	ppm	ASTM D5185m	>15	ATTENTION 35	16	<1
Copper	ppm	ASTM D5185m	>200	SEVERE 442	612	5
Tin	ppm	ASTM D5185m	>25	ATTENTION 40	62	<1

Customer Id: LEPALL
 Sample No.: WC05835439
 Lab Number: 05835439
 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	MISSED	Aug 14 2023	?	We advise that you inspect for the source(s) of wear.
Change Fluid	MISSED	Aug 14 2023	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	MISSED	Aug 14 2023	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

06 Feb 2023 Diag: Don Baldrige

WEAR



We advise that you check for the source of water entry. 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. Gear wear is indicated. Bearing and/or bushing wear is indicated. There is a high concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report



03 Mar 2022 Diag: Jonathan Hester

VISCOSITY



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 460 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

view report



16 Sep 2021 Diag: Jonathan Hester

VISCOSITY



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 460 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

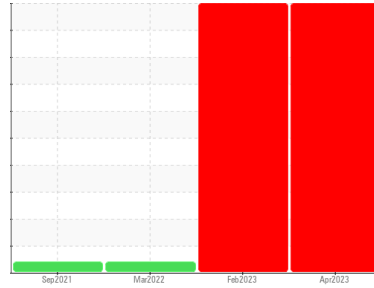
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Area
Deleted Component [172251]
 Machine Id
HUB CITY 322
 Component
Gearbox
 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

Bearing and/or gear wear is indicated.

Contamination

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		WC05835439	WC0767406	WC0641540
Sample Date	Client Info		27 Apr 2023	06 Feb 2023	03 Mar 2022
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	SEVERE	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	3673	1957	36
Chromium	ppm	ASTM D5185m >15	35	16	<1
Nickel	ppm	ASTM D5185m >15	6	8	2
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	<1	2
Aluminum	ppm	ASTM D5185m >25	5	3	<1
Lead	ppm	ASTM D5185m >100	<1	8	1
Copper	ppm	ASTM D5185m >200	442	612	5
Tin	ppm	ASTM D5185m >25	40	62	<1
Antimony	ppm	ASTM D5185m >5	---	---	---
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	<1	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	3	2	8
Barium	ppm	ASTM D5185m	0	<1	0
Molybdenum	ppm	ASTM D5185m	<1	<1	0
Manganese	ppm	ASTM D5185m	12	6	<1
Magnesium	ppm	ASTM D5185m	3	2	<1
Calcium	ppm	ASTM D5185m	41	39	3
Phosphorus	ppm	ASTM D5185m	269	274	1107
Zinc	ppm	ASTM D5185m	271	254	22
Sulfur	ppm	ASTM D5185m	2152	2458	17898

CONTAMINANTS

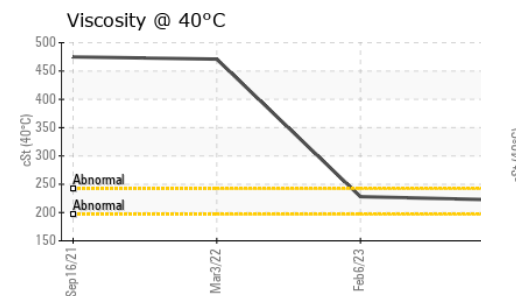
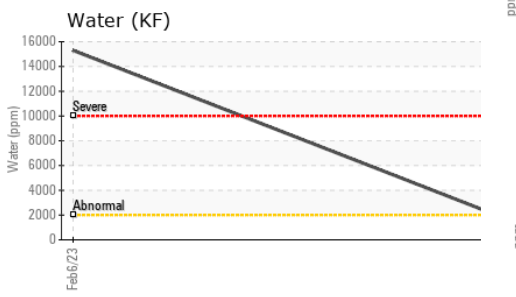
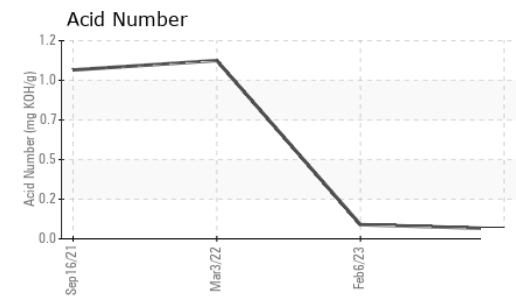
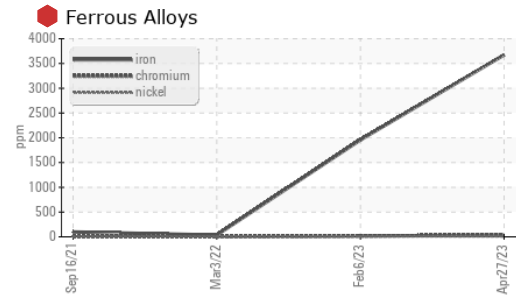
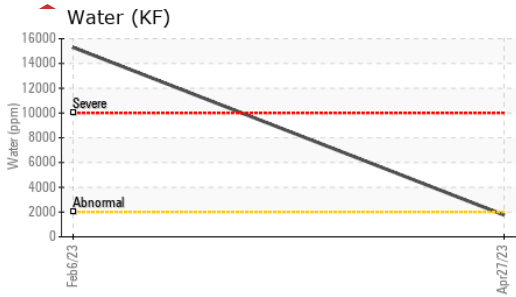
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	19	12	11
Sodium	ppm	ASTM D5185m	0	0	3
Potassium	ppm	ASTM D5185m >20	<1	0	4
Water	%	ASTM D6304 >0.2	0.176	1.53	---
ppm Water	ppm	ASTM D6304 >2000	1760	15300	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.086	1.08



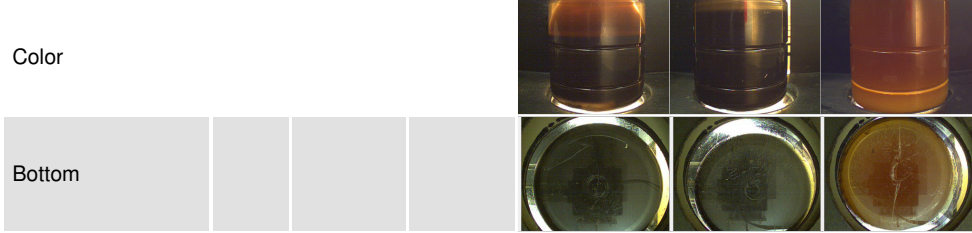
OIL ANALYSIS REPORT



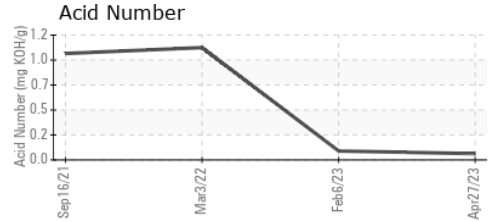
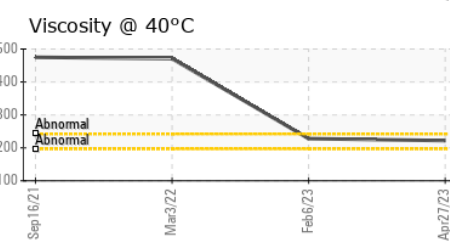
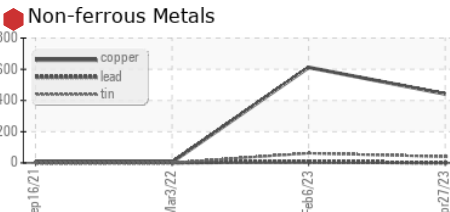
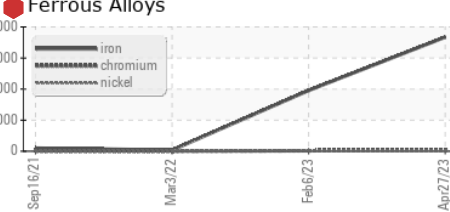
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	222	228	▲ 471

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05835439 **Received** : 02 May 2023
Lab Number : 05835439 **Diagnosed** : 04 May 2023
Unique Number : 10454242 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF)

LEPRINO FOODS - ALLENDALE
 4700 RICH STREET
 ALLENDALE, MI
 US 49401
 Contact: BILL FERRIER
 BFERRIER@LEPRINOFOODS.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: