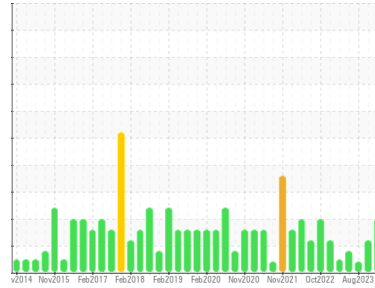




PROBLEM SUMMARY

Sample Rating Trend

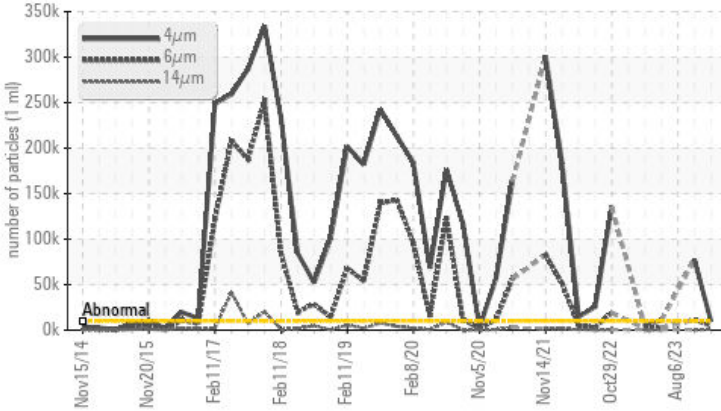
ISO



Area
RP-101
 Machine Id
B23353 - PRESS 3
 Component
Gearbox
 Fluid
GEAR OIL ISO 680 (--- QTS)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>2500	▲ 4592	▲ 11461	---
Particles >14µm	ASTM D7647	>320	▲ 986	259	---
Particles >21µm	ASTM D7647	>80	▲ 418	63	---
Particles >38µm	ASTM D7647	>20	▲ 42	3	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 20/19/17	▲ 23/21/15	---

Customer Id: HORAUS
 Sample No.: WC0856113
 Lab Number: 06029355
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

30 Oct 2023 Diag: Wes Davis

ISO



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



06 Aug 2023 Diag: Jonathan Hester

VIS DEBRIS



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



07 May 2023 Diag: Wes Davis

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

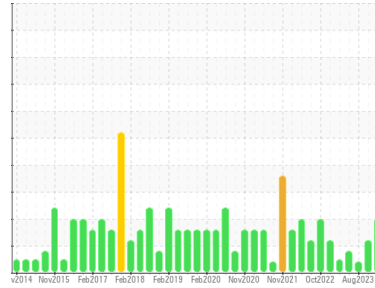
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
RP-101
 Machine Id
B23353 - PRESS 3
 Component
Gearbox
 Fluid
GEAR OIL ISO 680 (--- QTS)

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0856113	WC0855984	WC0826161
Sample Date	Client Info		02 Dec 2023	30 Oct 2023	06 Aug 2023
Machine Age	wks	Client Info	0	0	0
Oil Age	wks	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	2	12	3
Chromium	ppm	ASTM D5185m >15	<1	0	0
Nickel	ppm	ASTM D5185m >15	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	1	0	<1
Lead	ppm	ASTM D5185m >100	0	0	<1
Copper	ppm	ASTM D5185m >200	0	0	<1
Tin	ppm	ASTM D5185m >25	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	0	28	0
Barium	ppm	ASTM D5185m 15	3	0	0
Molybdenum	ppm	ASTM D5185m 15	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 50	0	0	3
Calcium	ppm	ASTM D5185m 50	0	<1	0
Phosphorus	ppm	ASTM D5185m 350	438	434	382
Zinc	ppm	ASTM D5185m 100	0	53	0
Sulfur	ppm	ASTM D5185m 12500	80	5654	272

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	14	13	14
Sodium	ppm	ASTM D5185m	<1	1	4
Potassium	ppm	ASTM D5185m >20	<1	<1	3

FLUID CLEANLINESS

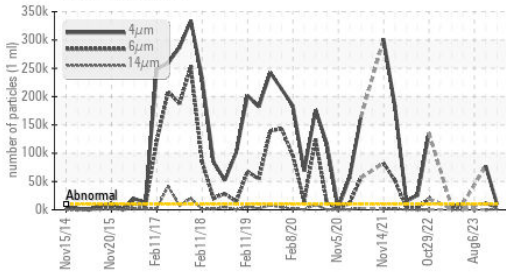
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	9731	▲ 77520	---
Particles >6µm	ASTM D7647	>2500	▲ 4592	▲ 11461	---
Particles >14µm	ASTM D7647	>320	▲ 986	259	---
Particles >21µm	ASTM D7647	>80	▲ 418	63	---
Particles >38µm	ASTM D7647	>20	▲ 42	3	---
Particles >71µm	ASTM D7647	>4	1	1	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 20/19/17	▲ 23/21/15	---

FLUID DEGRADATION

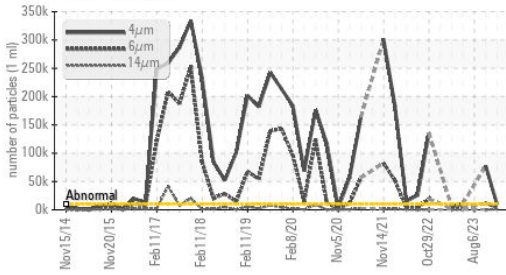
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	0.34	0.86	0.39

OIL ANALYSIS REPORT

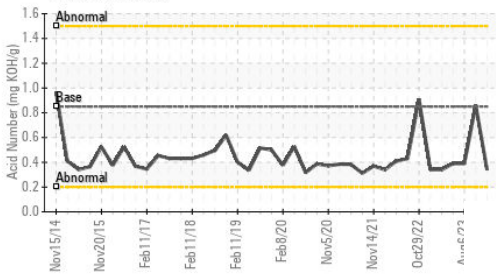
▲ Particle Trend



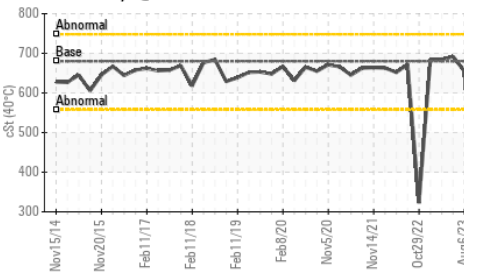
▲ Particle Trend



Acid Number



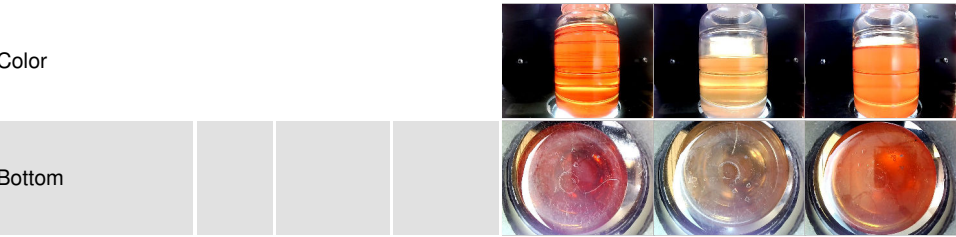
Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
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	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

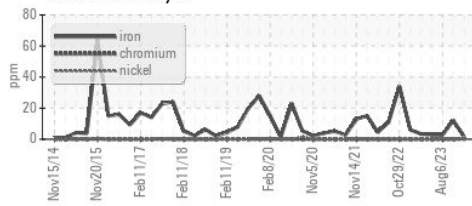
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	680	700	327

SAMPLE IMAGES	method	limit/base	current	history1	history2
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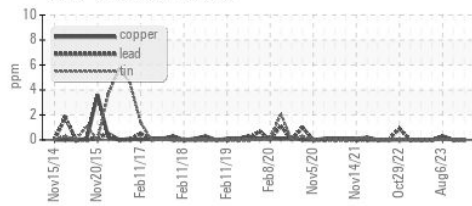


GRAPHS

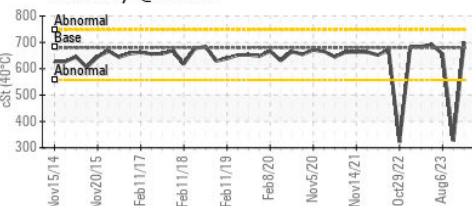
Ferrous Alloys



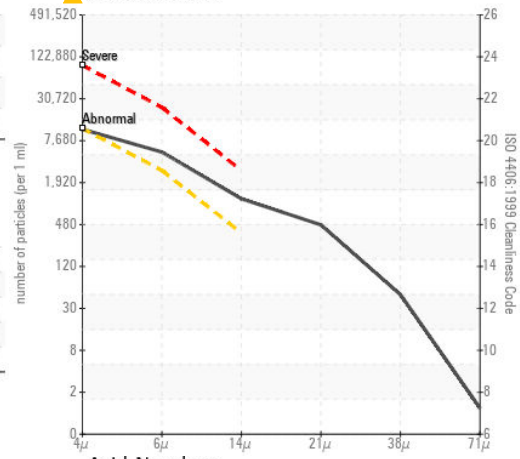
Non-ferrous Metals



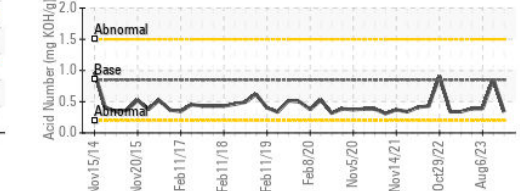
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856113 **Received** : 08 Dec 2023
Lab Number : 06029355 **Diagnosed** : 11 Dec 2023
Unique Number : 10779146 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: PrtCount)

HORMEL FOODS - AUSTIN
 1101 NORTH MAIN ST
 AUSTIN, MN
 US 55912
 Contact: RYAN LOWE
 rslowe@hormel.com
 T: (507)437-5674
 F: (507)437-9805

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)