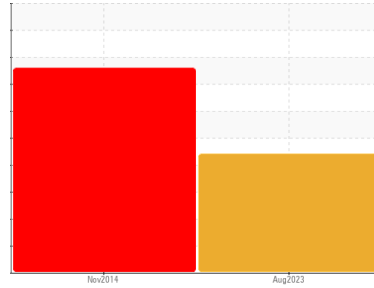




PROBLEM SUMMARY

Sample Rating Trend



WEAR

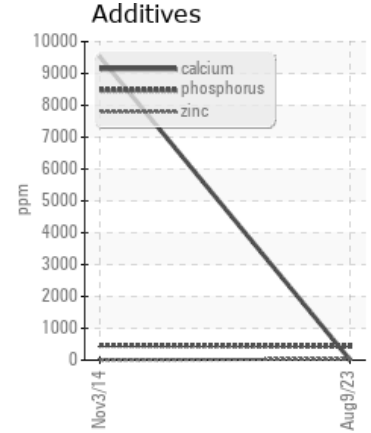
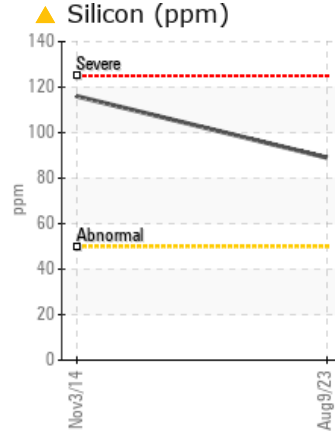
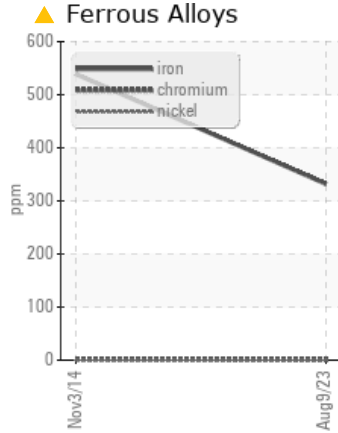
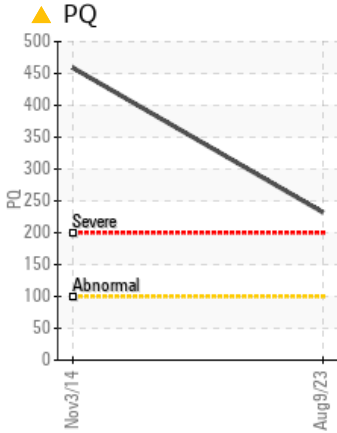


Machine Id
BROWNING 215 25:1 #14 SCREW

Component
Gearbox

Fluid
MOBIL MOBILGEAR SHC 220 (9 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	---
PQ		ASTM D8184*	▲ 232	▲ 459	---
Iron	ppm	ASTM D5185(m) >200	▲ 332	▲ 539	---
Silicon	ppm	ASTM D5185(m) >50	▲ 89	▲ 116	---

Customer Id: REIBLI
 Sample No.: WC0750562
 Lab Number: 02575479
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@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.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
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

WEAR



03 Nov 2014 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. PQ levels are abnormal. Iron ppm levels are abnormal. Aluminum ppm levels are noted. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring. Calcium and/or magnesium levels higher than normal indicating possible lime contamination, advise investigate. The water content is negligible. High amount of ingressed dirt has caused abrasive wear to the component. The AN level is lower than typical for this product. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

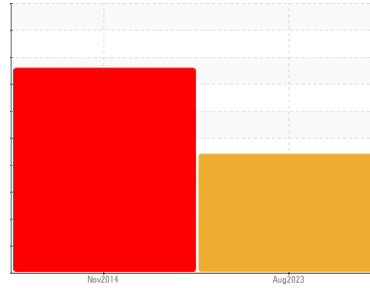
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
BROWNING 215 25:1 #14 SCREW

Component

Gearbox

Fluid

MOBIL MOBILGEAR SHC 220 (9 LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

PQ levels are abnormal. Iron ppm levels are abnormal. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

Contamination

There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. 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		WC0750562	WC925165	---
Sample Date	Client Info		09 Aug 2023	03 Nov 2014	---
Machine Age	hrs	Client Info	0	26877	---
Oil Age	hrs	Client Info	0	7587	---
Oil Changed	Client Info		Not Changed	Not Changed	---
Sample Status			ABNORMAL	ABNORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		▲ 232	▲ 459	---
Iron	ppm	ASTM D5185(m) >200	▲ 332	▲ 539	---
Chromium	ppm	ASTM D5185(m) >15	1	1	---
Nickel	ppm	ASTM D5185(m) >15	0	<1	---
Titanium	ppm	ASTM D5185(m)	<1	2	---
Silver	ppm	ASTM D5185(m)	0	0	---
Aluminum	ppm	ASTM D5185(m) >25	2	▲ 35	---
Lead	ppm	ASTM D5185(m) >100	0	0	---
Copper	ppm	ASTM D5185(m) >200	2	1	---
Tin	ppm	ASTM D5185(m) >25	0	0	---
Antimony	ppm	ASTM D5185(m) >5	0	2	---
Vanadium	ppm	ASTM D5185(m)	0	<1	---
Beryllium	ppm	ASTM D5185(m)	0	0	---
Cadmium	ppm	ASTM D5185(m)	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<1	25	---
Barium	ppm	ASTM D5185(m)	2	<1	---
Molybdenum	ppm	ASTM D5185(m)	<1	<1	---
Manganese	ppm	ASTM D5185(m)	3	4	---
Magnesium	ppm	ASTM D5185(m)	3	▲ 204	---
Calcium	ppm	ASTM D5185(m)	8	▲ 9524	---
Phosphorus	ppm	ASTM D5185(m)	429	471	---
Zinc	ppm	ASTM D5185(m)	33	6	---
Sulfur	ppm	ASTM D5185(m)	1783	▲ 2543	---
Lithium	ppm	ASTM D5185(m)	2	<1	---

CONTAMINANTS

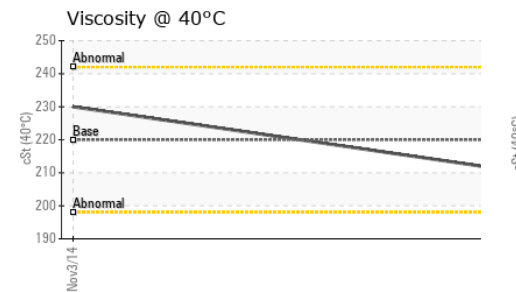
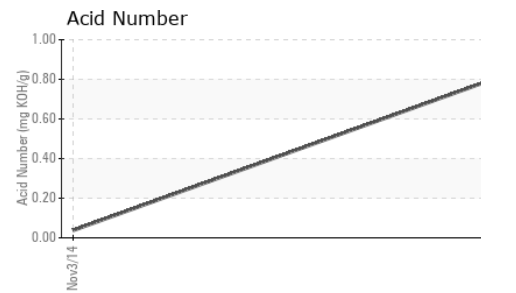
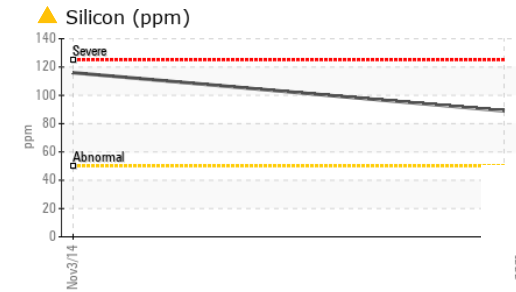
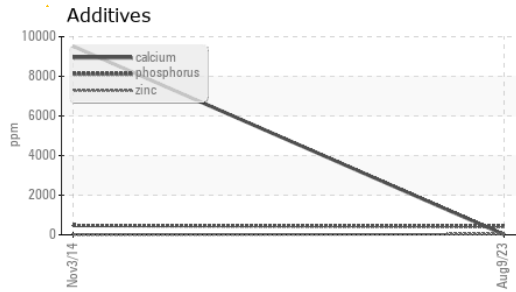
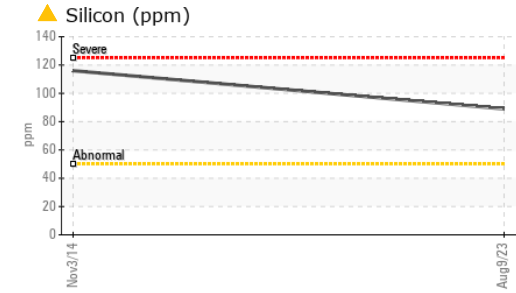
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	▲ 89	▲ 116	---
Sodium	ppm	ASTM D5185(m)	0	8	---
Potassium	ppm	ASTM D5185(m) >20	<1	25	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.82	▲ 0.037	---



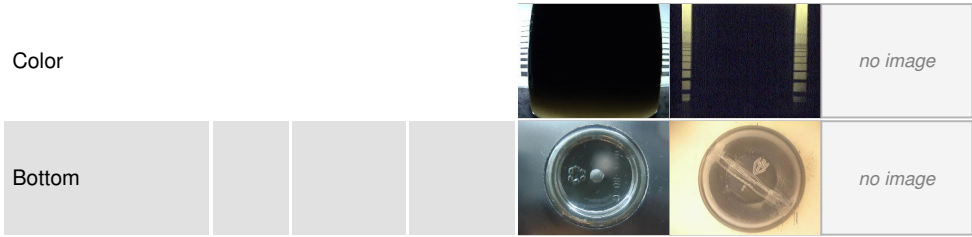
OIL ANALYSIS REPORT



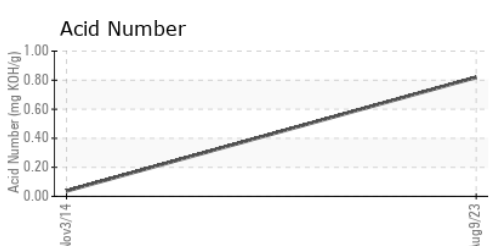
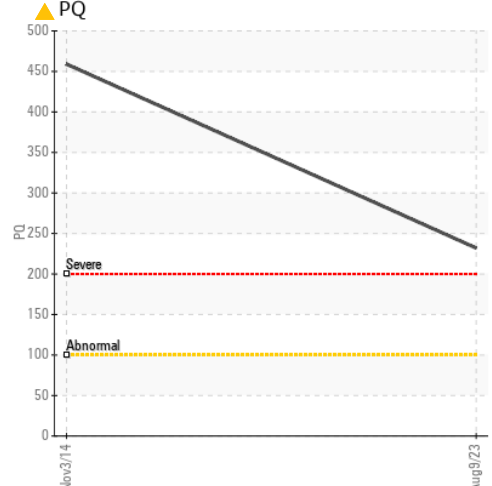
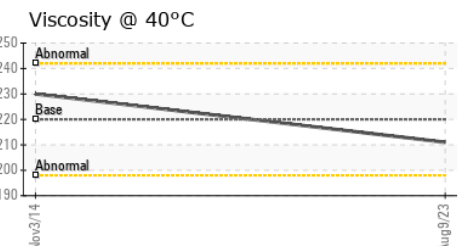
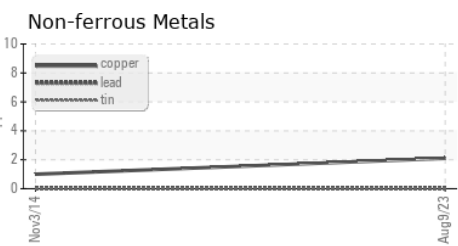
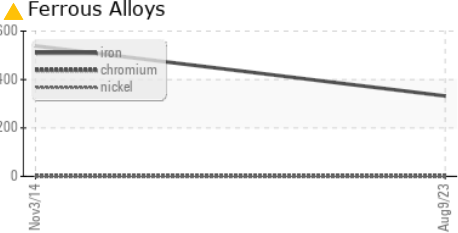
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	LIGHT
Debris	scalar	Visual*	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	.2%
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	211	230

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0750562 **Received** : 11 Aug 2023
Lab Number : 02575479 **Diagnosed** : 12 Aug 2023
Unique Number : 5620530 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

CARMEUSE LIME CANADA LTD.
 BOX 1690,, HWY 17 EAST
 BLIND RIVER, ON
 CA P0R 1B0
 Contact: Rejean Baillargeon
 rejean.baillargeon@carmeusena.com
 T: (705)849-2201
 F: (705)849-2355

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.