

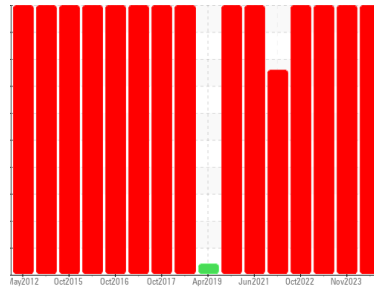


PROBLEM SUMMARY

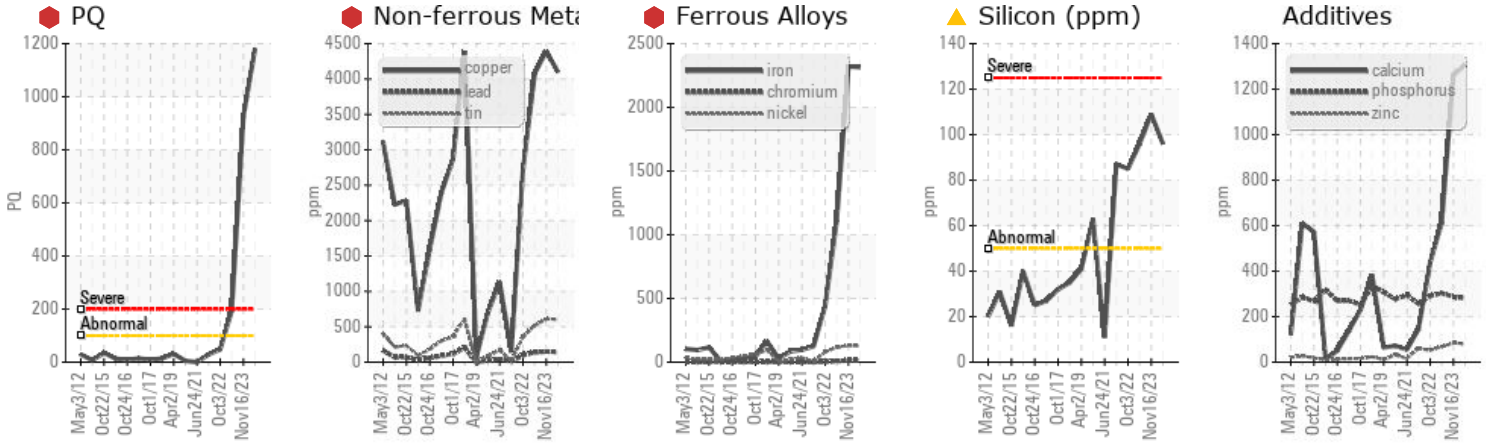
Sample Rating Trend

WEAR

Area
Lime Kilns Route #1
 Machine Id
RENOLD WM8 #M16252413 102150 LB-4 Belt Conveyor Reducer
 Component
Gear Reducer
 Fluid
MOBIL MOBILGEAR 600 XP 220 (12 LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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		ASTM D8184*	SEVERE	SEVERE	SEVERE
PQ			1181	924	194
Iron	ppm	ASTM D5185(m) >150	2315	2321	1111
Chromium	ppm	ASTM D5185(m) >10	13	13	8
Nickel	ppm	ASTM D5185(m) >10	128	130	116
Lead	ppm	ASTM D5185(m) >100	144	149	140
Copper	ppm	ASTM D5185(m) >50	4099	4395	4073
Tin	ppm	ASTM D5185(m) >10	604	610	518
Silicon	ppm	ASTM D5185(m) >50	96	109	96

Customer Id: BEAING
 Sample No.: WC0877627
 Lab Number: 02609140
 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 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.
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.

HISTORICAL DIAGNOSIS

16 Nov 2023 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. Check seals and/or filters for points of contaminant entry. 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. Copper and iron, nickel and tin ppm levels are severe. PQ levels are severe. Chromium and lead ppm levels are abnormal. Gear wear is indicated. Bearing and/or bushing wear is indicated. The very high ferrous density (PQ) index indicates that severe wear is occurring. Calcium and/or magnesium levels higher than normal indicating possible lime contamination, advise investigate. There is a moderate concentration of water present in the oil. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. The AN level is above the recommended limit. 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.

WEAR



view report



20 Apr 2023 Diag: Kevin Marson

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. Copper and iron and nickel and tin ppm levels are severe. PQ levels are abnormal. Lead ppm levels are abnormal. Gear wear is indicated. Bearing and/or bushing 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. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. 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.

WEAR



view report



03 Oct 2022 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 advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Copper and iron, nickel and tin ppm levels are severe. Lead ppm levels are abnormal. Bearing and/or bushing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. Calcium and/or magnesium levels higher than normal indicating possible lime contamination, advise investigate. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. 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.

WEAR



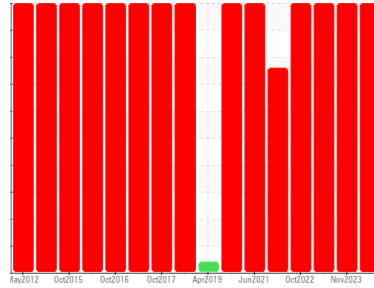
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
Lime Kilns Route #1
 Machine Id
RENOLD WM8 #M16252413 102150 LB-4 Belt Conveyor Reducer
 Component
Gear Reducer
 Fluid
MOBIL MOBILGEAR 600 XP 220 (12 LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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

Copper and iron, nickel and tin ppm levels are severe. PQ levels are severe. Chromium and lead ppm levels are abnormal. Gear wear is indicated. Bearing and/or bushing wear is indicated. The very high ferrous density (PQ) index indicates that severe 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		WC0877627	WC0868744	WC0804944
Sample Date	Client Info		12 Dec 2023	16 Nov 2023	20 Apr 2023
Machine Age	yrs	Client Info	0	0	0
Oil Age	yrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	SEVERE	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		1181	924	194
Iron	ppm	ASTM D5185(m) >150	2315	2321	1111
Chromium	ppm	ASTM D5185(m) >10	13	13	8
Nickel	ppm	ASTM D5185(m) >10	128	130	116
Titanium	ppm	ASTM D5185(m)	<1	<1	<1
Silver	ppm	ASTM D5185(m)	<1	<1	<1
Aluminum	ppm	ASTM D5185(m) >25	6	6	4
Lead	ppm	ASTM D5185(m) >100	144	149	140
Copper	ppm	ASTM D5185(m) >50	4099	4395	4073
Tin	ppm	ASTM D5185(m) >10	604	610	518
Antimony	ppm	ASTM D5185(m) >5	0	<1	<1
Vanadium	ppm	ASTM D5185(m)	0	0	<1
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

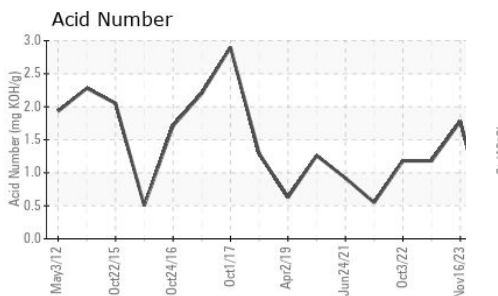
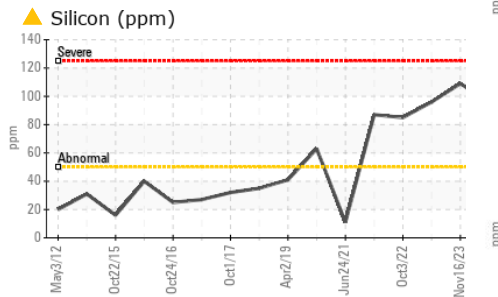
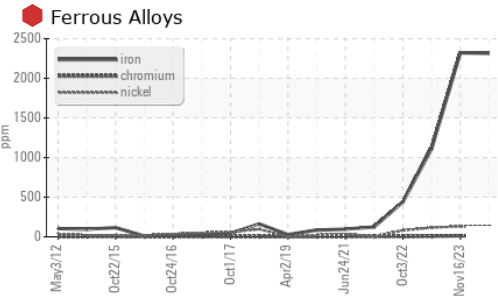
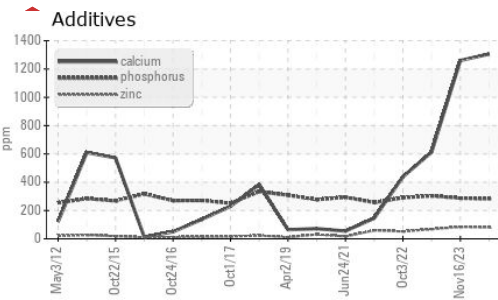
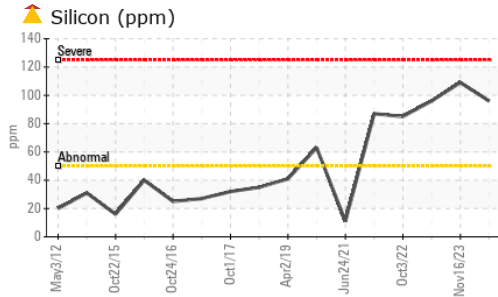
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	11	13	9
Barium	ppm	ASTM D5185(m)	6	7	5
Molybdenum	ppm	ASTM D5185(m)	<1	<1	<1
Manganese	ppm	ASTM D5185(m)	24	24	13
Magnesium	ppm	ASTM D5185(m)	30	31	16
Calcium	ppm	ASTM D5185(m)	1306	1260	613
Phosphorus	ppm	ASTM D5185(m)	282	287	303
Zinc	ppm	ASTM D5185(m)	80	84	68
Sulfur	ppm	ASTM D5185(m)	12606	12577	12787
Lithium	ppm	ASTM D5185(m)	2	2	2

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	96	109	96
Sodium	ppm	ASTM D5185(m)	38	40	35
Potassium	ppm	ASTM D5185(m) >20	19	20	13

FLUID DEGRADATION

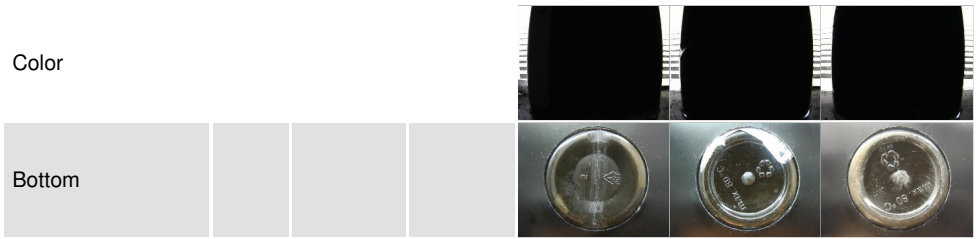
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	1.78	1.18



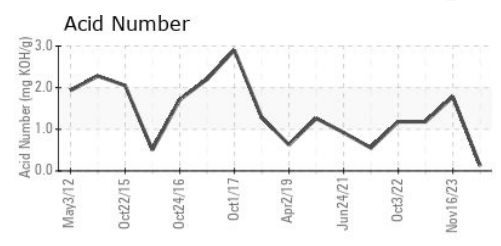
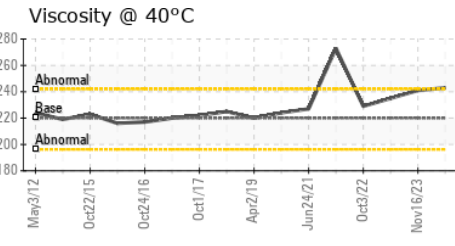
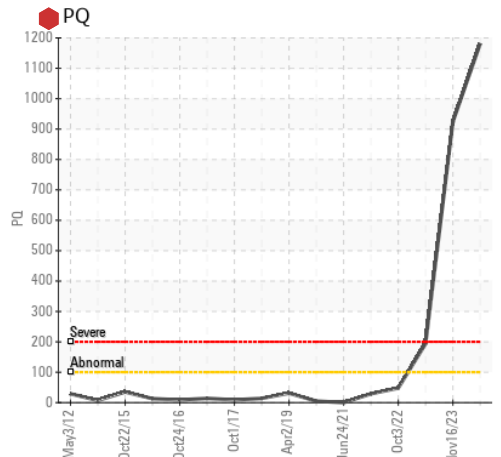
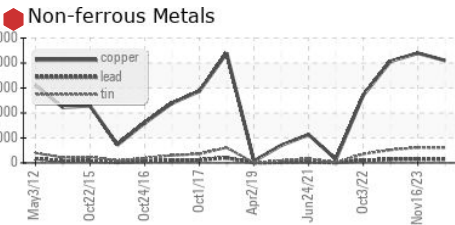
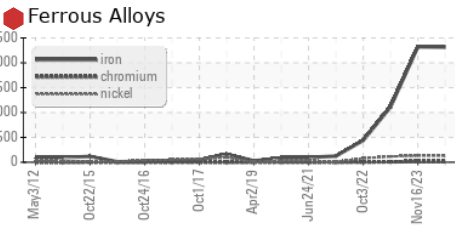
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	LIGHT
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	▲ .2%
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	243	235

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



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0877627
Lab Number : 02609140
Unique Number : 5710226
Test Package : IND 2

CARMEUSE LIME
 374681 OXFORD COUNTY ROAD 6., P.O. BOX 190
 INGERSOLL, ON
 CA N5C 3K5
 Contact: Jeff Geddes
 jeff.geddes@carmeuse.ca
 T: (519)423-6283
 F: (519)423-6568

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.