

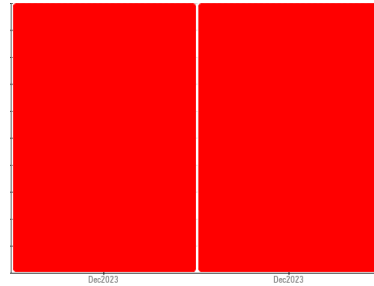


PROBLEM SUMMARY

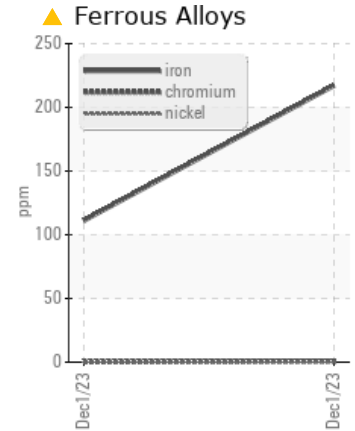
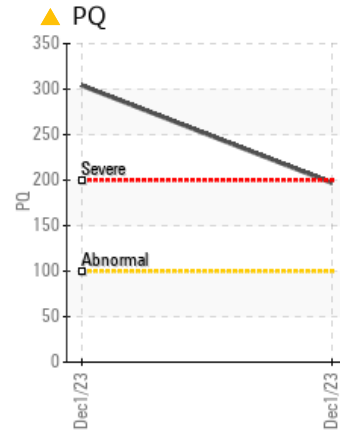
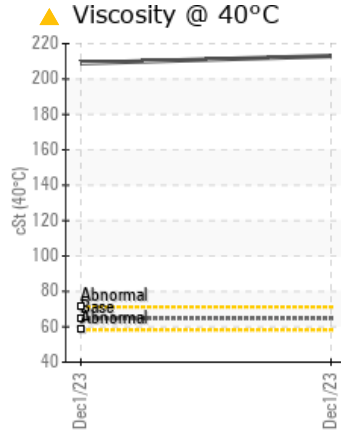
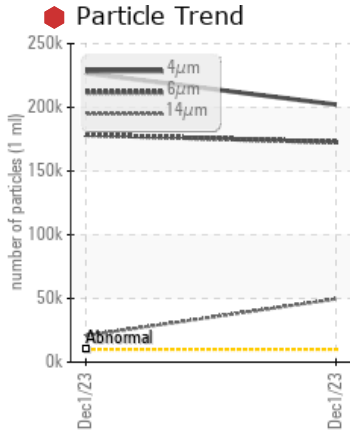
Sample Rating Trend

WEAR

Area
BUILDING 51 - CEREAL PRODUCTS
 Machine Id
SCRUBBER BLOWDOWN TANK PUMP #2 NORTH BEARING FRAME (S/N 51P102)
 Component
Bearing
 Fluid
LUBRICATION ENG MULTILEC 6803 (--- LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	---
PQ		ASTM D8184*	▲ 197	● 304	---
Iron	ppm	ASTM D5185(m) >20	▲ 111	● 217	---
Particles >4µm		ASTM D7647 >10000	● 226831	● 202158	---
Particles >6µm		ASTM D7647 >2500	● 178480	● 172662	---
Particles >14µm		ASTM D7647 >160	● 20812	● 49566	---
Particles >21µm		ASTM D7647 >40	● 644	● 7747	---
Oil Cleanliness		ISO 4406 (c) >20/18/14	● 25/25/22	● 25/25/23	---
Visc @ 40°C	cSt	ASTM D7279(m) 64.7	▲ 213	▲ 209	---

Customer Id: HIRWIN
 Sample No.: WC0865418
 Lab Number: 02601320
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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Kevin.Marson@wearcheck.com

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 Gloria Gonzalez +1 (289)291-4643 x4643
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RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
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 contaminants can enter the system.
Filter Fluid	---	---	?	We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type.

HISTORICAL DIAGNOSIS

WEAR



01 Dec 2023 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Iron ppm levels are severe. PQ levels are severe. Bearing wear is indicated. The very high ferrous density (PQ) index indicates that severe wear is occurring. There is a high amount of particulates (2 to 100 microns in size) present in the oil. Viscosity of sample indicates oil is within SAE 90 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report



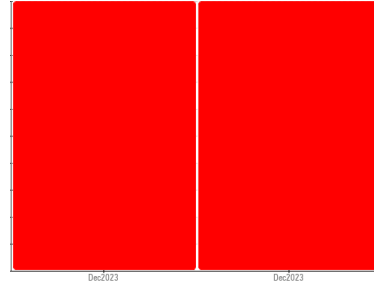


OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Area
BUILDING 51 - CEREAL PRODUCTS
 Machine Id
SCRUBBER BLOWDOWN TANK PUMP #2 NORTH BEARING FRAME (S/N 51P102)
 Component
Bearing
 Fluid
LUBRICATION ENG MULTILEC 6803 (--- LTR)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We recommend either performing an oil change or oil filtration. We cannot recommend specific action as we have limited information with regards to reservoir capacity and/or lubricant type. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

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

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 80W90 range, advise investigate. 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		WC0865418	WC0865417	---
Sample Date	Client Info		01 Dec 2023	01 Dec 2023	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		Not Changed	Not Changed	---
Sample Status			SEVERE	SEVERE	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>2	NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		▲ 197	304	---
Iron	ppm	ASTM D5185(m) >20	▲ 111	217	---
Chromium	ppm	ASTM D5185(m) >20	<1	<1	---
Nickel	ppm	ASTM D5185(m) >20	<1	<1	---
Titanium	ppm	ASTM D5185(m)	0	0	---
Silver	ppm	ASTM D5185(m)	<1	<1	---
Aluminum	ppm	ASTM D5185(m) >20	<1	<1	---
Lead	ppm	ASTM D5185(m) >20	0	0	---
Copper	ppm	ASTM D5185(m) >20	<1	<1	---
Tin	ppm	ASTM D5185(m) >20	0	0	---
Antimony	ppm	ASTM D5185(m)	0	0	---
Vanadium	ppm	ASTM D5185(m)	0	0	---
Beryllium	ppm	ASTM D5185(m)	0	0	---
Cadmium	ppm	ASTM D5185(m)	0	0	---

ADDITIVES

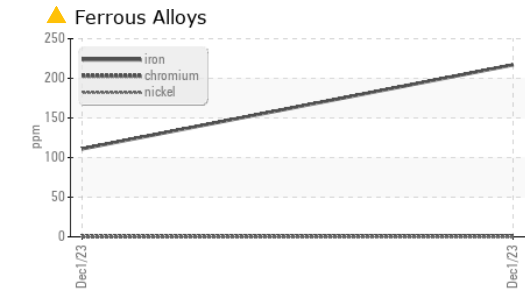
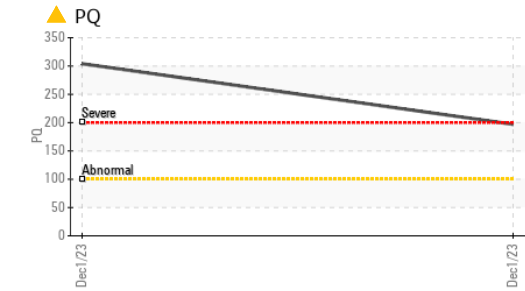
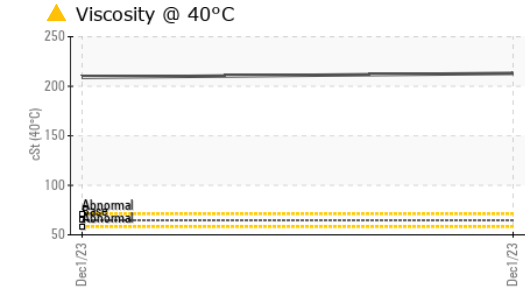
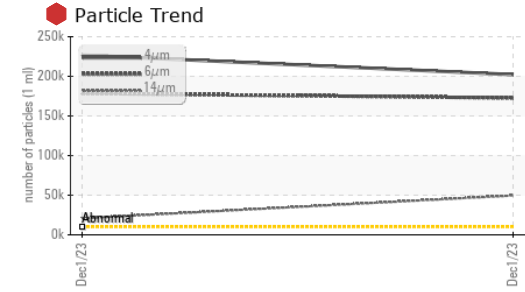
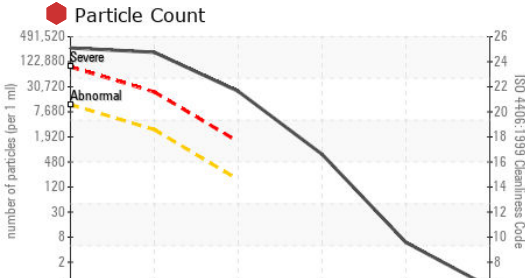
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	77	68	---
Barium	ppm	ASTM D5185(m)	3	<1	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---
Manganese	ppm	ASTM D5185(m)	1	<1	---
Magnesium	ppm	ASTM D5185(m)	0	0	---
Calcium	ppm	ASTM D5185(m)	5	2	---
Phosphorus	ppm	ASTM D5185(m)	1041	1050	---
Zinc	ppm	ASTM D5185(m)	6	3	---
Sulfur	ppm	ASTM D5185(m)	15102	14968	---
Lithium	ppm	ASTM D5185(m)	2	<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	2	<1	---
Sodium	ppm	ASTM D5185(m)	3	2	---
Potassium	ppm	ASTM D5185(m) >20	<1	0	---



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0865418
Lab Number : 02601320
Unique Number : 5694405
Test Package : IND 2 (Additional Tests: PQ, TAN Man)

HIRAM WALKER & SONS LTD.
 2072 RIVERSIDE DRIVE EAST, BOX 2518
 WINDSOR, ON
 CA N8Y 4S5
 Contact: Matt Morand
 matt.morand@pernod-ricard.com
 T: (519)561-5359
 F: (519)971-5719

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.

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	226831	202158	---
Particles >6µm	ASTM D7647	>2500	178480	172662	---
Particles >14µm	ASTM D7647	>160	20812	49566	---
Particles >21µm	ASTM D7647	>40	644	7747	---
Particles >38µm	ASTM D7647	>10	5	92	---
Particles >71µm	ASTM D7647	>3	0	2	---
Oil Cleanliness	ISO 4406 (c)	>20/18/14	25/25/22	25/25/23	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.33	2.28	---

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	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	NEG	NEG	---
Free Water	scalar	Visual*	NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	213	209	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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