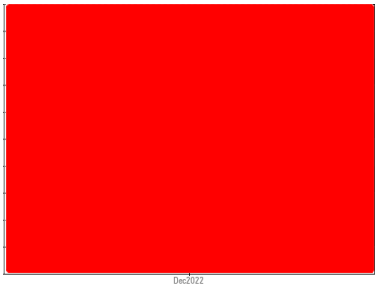
PROBLEM SUMMARY

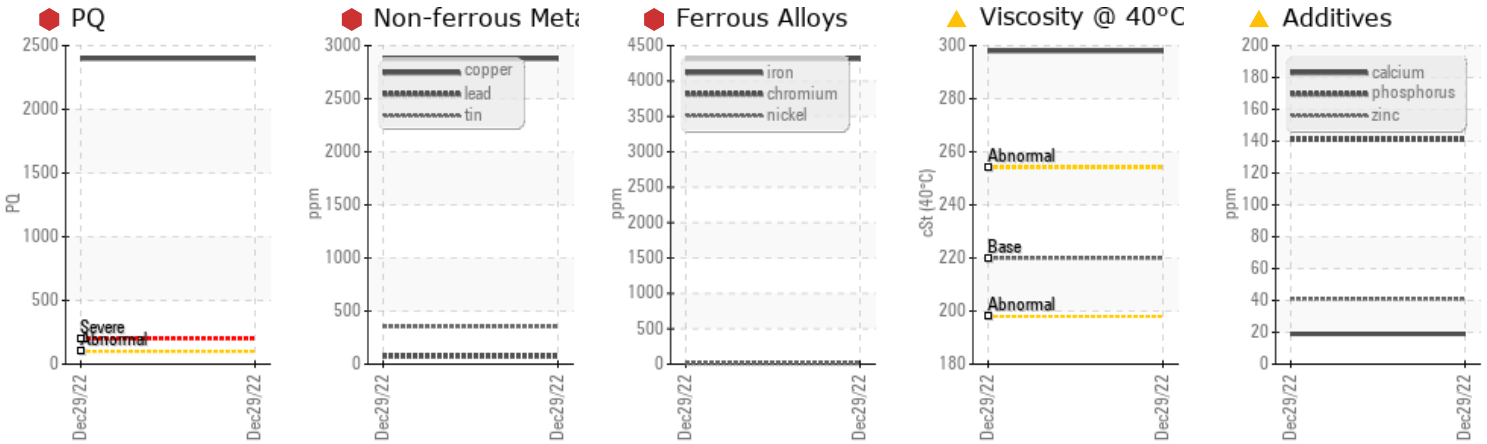
Sample Rating Trend



WEAR

Machine Id
PERFORATOR REWIND SHAFT
Component
Gearbox
Fluid
SHELL OMALA 220 (--- GAL)

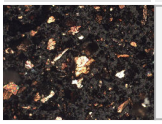
COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for visible metal particles in the oil. 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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
PQ		ASTM D8184*		**2399**	---	---
Iron	ppm	ASTM D5185(m)	>200	**4314**	---	---
Chromium	ppm	ASTM D5185(m)	>15	**18**	---	---
Copper	ppm	ASTM D5185(m)	>200	**2878**	---	---
Tin	ppm	ASTM D5185(m)	>25	**354**	---	---
Yellow Metal	scalar	Visual*	NONE	**MODER**	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	220	**298**	---	---
PrtFilter					*no image*	*no image*

Customer Id: IVEMIS
Sample No.: WC0763609
Lab Number: 02533195
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

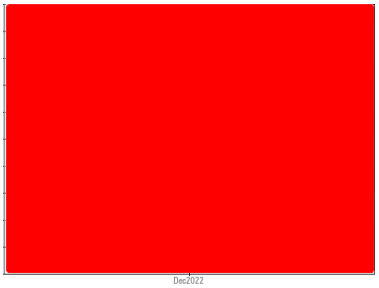
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	MISSED	Feb 15 2024	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	MISSED	Feb 15 2024	?	We recommend an early resample to monitor this condition.
Information Required	MISSED	Feb 15 2024	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Fluid Source	MISSED	Feb 15 2024	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check For Visual Metal	MISSED	Feb 15 2024	?	We advise that you check for visible metal particles in the oil.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
PERFORATOR REWIND SHAFT
Component
Gearbox
Fluid
SHELL OMALA 220 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for visible metal particles in the oil. 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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

Copper and iron and tin ppm levels are severe. PQ PQ levels are severe. Chromium ppm levels are abnormal. Moderate concentration of visible metal present. Bearing and/or bushing wear is indicated. Gear wear is indicated. The very high ferrous density (PQ) index indicates that severe wear is occurring.

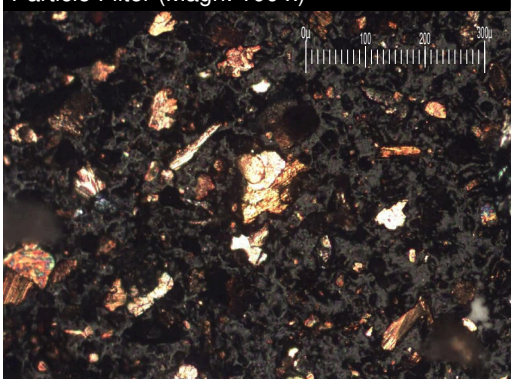
Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 320 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Particle Filter (Magn: 100 x)



SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0763609**	---	---
Sample Date		Client Info		**29 Dec 2022**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

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

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		● **2399**	---	---
Iron	ppm	ASTM D5185(m)	>200	● **4314**	---	---
Chromium	ppm	ASTM D5185(m)	>15	▲ **18**	---	---
Nickel	ppm	ASTM D5185(m)	>15	**13**	---	---
Titanium	ppm	ASTM D5185(m)		**<1**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>25	**4**	---	---
Lead	ppm	ASTM D5185(m)	>100	**74**	---	---
Copper	ppm	ASTM D5185(m)	>200	● **2878**	---	---
Tin	ppm	ASTM D5185(m)	>25	● **354**	---	---
Antimony	ppm	ASTM D5185(m)	>5	**<1**	---	---
Vanadium	ppm	ASTM D5185(m)		**<1**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

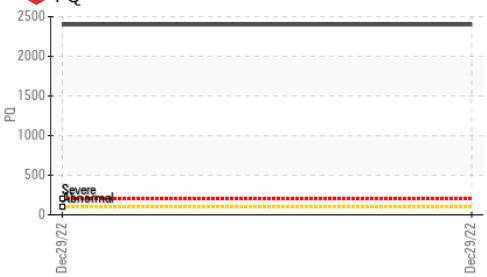
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	4.4	**9**	---	---
Barium	ppm	ASTM D5185(m)	0.0	**0**	---	---
Molybdenum	ppm	ASTM D5185(m)	0	**4**	---	---
Manganese	ppm	ASTM D5185(m)		▲ **30**	---	---
Magnesium	ppm	ASTM D5185(m)	0	**3**	---	---
Calcium	ppm	ASTM D5185(m)	0	**19**	---	---
Phosphorus	ppm	ASTM D5185(m)	215	**141**	---	---
Zinc	ppm	ASTM D5185(m)	0	▲ **41**	---	---
Sulfur	ppm	ASTM D5185(m)	7039	**7227**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**17**	---	---
Sodium	ppm	ASTM D5185(m)		**10**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**2**	---	---

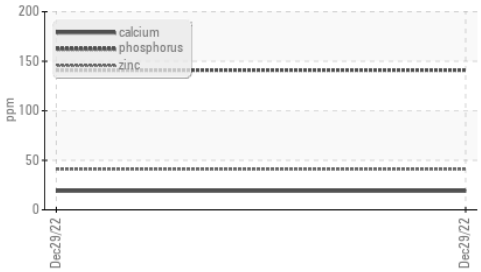
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.59**	---	---

OIL ANALYSIS REPORT

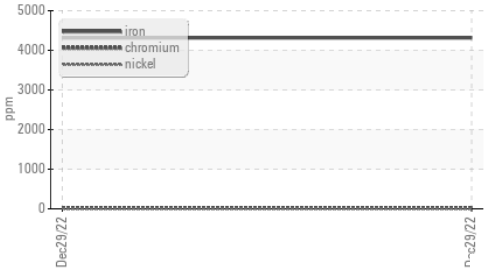
PQ



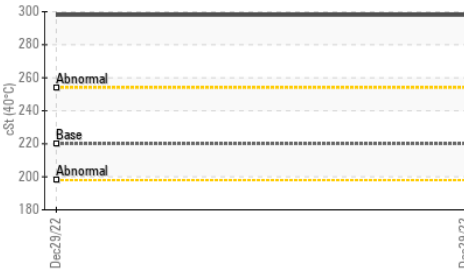
Additives



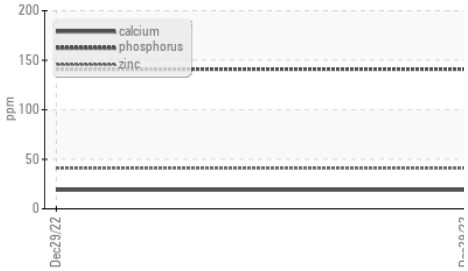
Ferrous Alloys



Viscosity @ 40°C

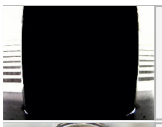
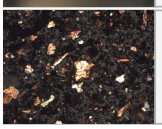


Additives



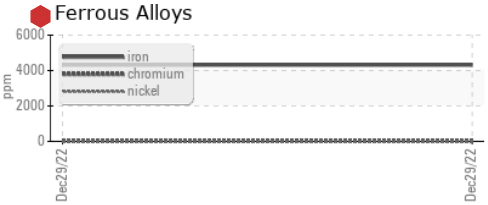
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	▲ **MODER**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	▲ **298**	---	---

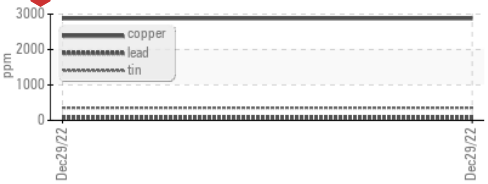
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*
PrtFilter				*no image*	*no image*

GRAPHS

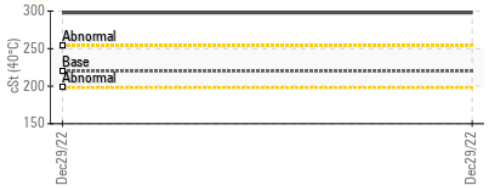
Ferrous Alloys



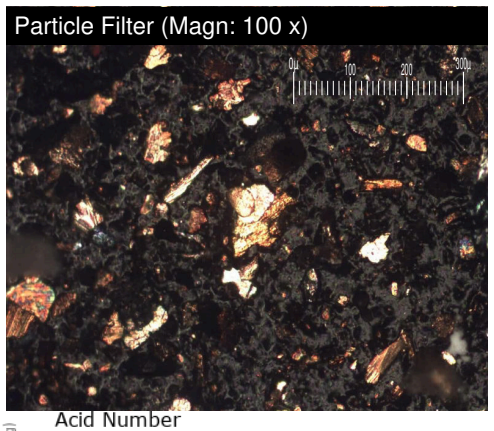
Non-ferrous Metals



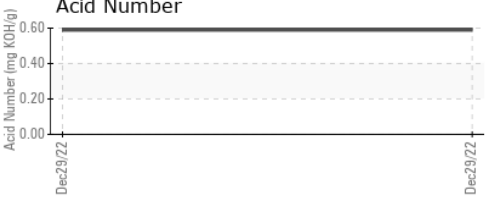
Viscosity @ 40°C



Particle Filter (Magn: 100 x)



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0763609 **Received** : 13 Jan 2023
Lab Number : 02533195 **Tested** : 16 Jan 2023
Unique Number : 5514194 **Diagnosed** : 16 Jan 2023 - Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, TAN Man)

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.

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