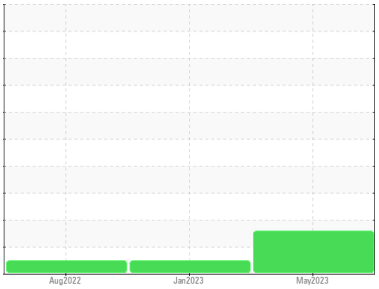
OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Machine Id
KUBOTA R420 OR88
Component
Diesel Engine
Fluid
PARTS MASTER 5W30 (--- LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

Wear

Light concentration of visible metal present.

Contamination

Light concentration of visible dirt/debris present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0082112**	GFL0057871	GFL0057931
Sample Date		Client Info		**09 May 2023**	17 Jan 2023	23 Aug 2022
Machine Age	hrs	Client Info		**4321**	0	4201
Oil Age	hrs	Client Info		**0**	500	600
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	1.3
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**6**	2	4
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	0
Nickel	ppm	ASTM D5185(m)	>4	**0**	0	0
Titanium	ppm	ASTM D5185(m)		**<1**	0	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**2**	<1	2
Lead	ppm	ASTM D5185(m)	>40	**0**	0	0
Copper	ppm	ASTM D5185(m)	>330	**1**	<1	<1
Tin	ppm	ASTM D5185(m)	>15	**1**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
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)		**6**	11	47
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**55**	54	41
Manganese	ppm	ASTM D5185(m)		**<1**	0	<1
Magnesium	ppm	ASTM D5185(m)		**924**	881	572
Calcium	ppm	ASTM D5185(m)		**1017**	1067	1499
Phosphorus	ppm	ASTM D5185(m)		**997**	1017	843
Zinc	ppm	ASTM D5185(m)		**1144**	1099	900
Sulfur	ppm	ASTM D5185(m)		**2492**	2449	2214
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**5**	3	4
Sodium	ppm	ASTM D5185(m)		**5**	2	4
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0**	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**5.1**	4.9	5.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**19.0**	18.0	22.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.4**	14.1	18.2

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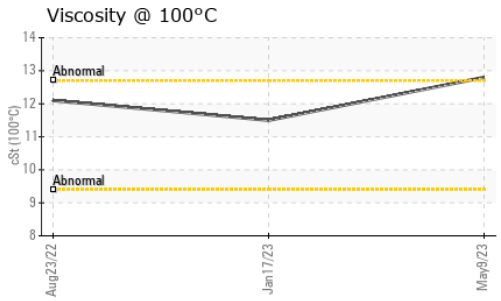
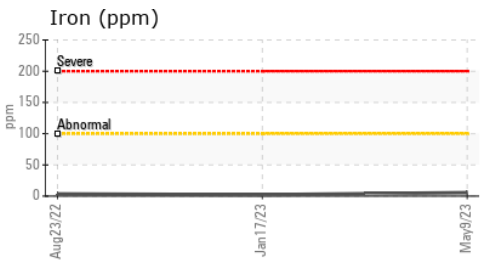
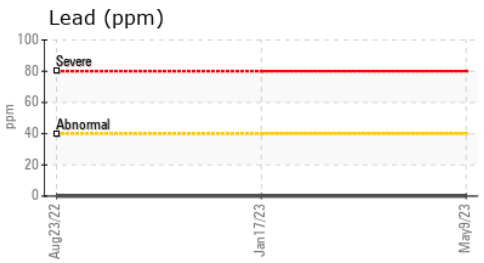


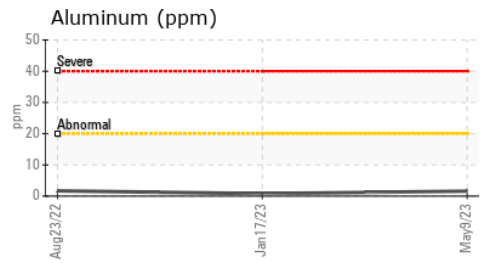
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ **VLITE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	▲ **LIGHT**	---	---
Sand/Dirt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

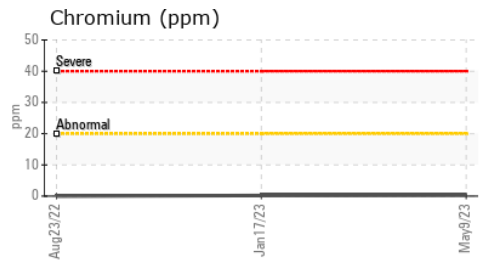
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		**12.8**	11.5	12.1

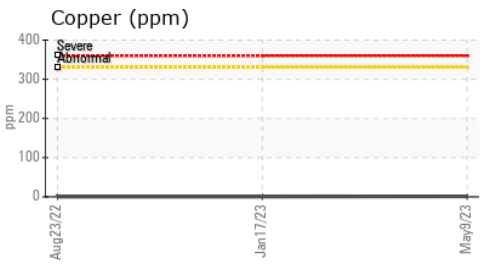
GRAPHS

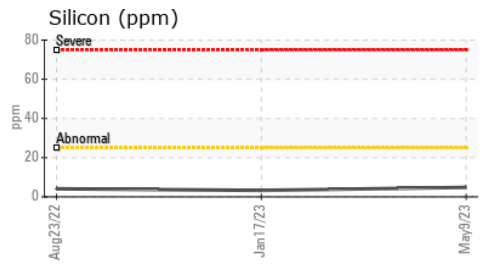


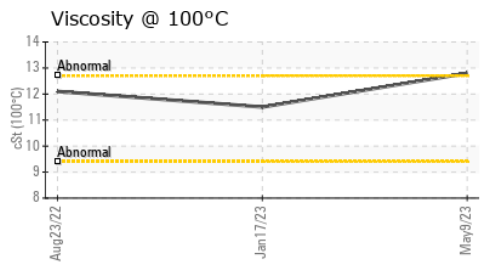


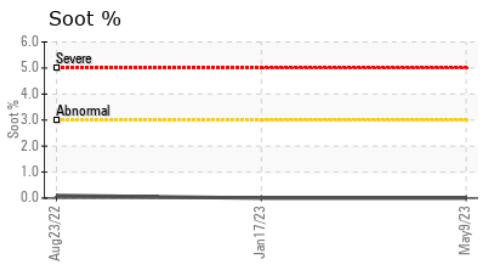












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0082112 **Received** : 30 Aug 2023
Lab Number : 02579311 **Diagnosed** : 01 Sep 2023
Unique Number : 5632371 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: BottomAnalysis, FILTERPATCH, Visual)

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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