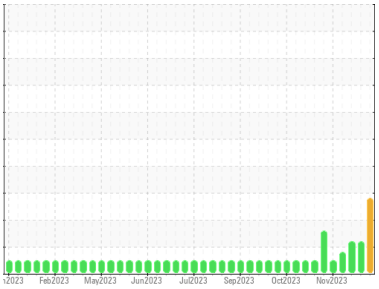
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
5
Machine Id
5-3-241 Pump Station for Atox GBOX Lube
Component
Gearbox
Fluid
MOBIL MOBILGEAR 600 XP 320 (4400 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. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

A sharp increase in the iron level is noted. Gear wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Calcium and/or magnesium levels higher than normal indicating possible lime contamination, advise investigate.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0883473**	WC0883469	WC0883472
Sample Date		Client Info		**09 Jan 2024**	18 Dec 2023	11 Dec 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	▲ **53**	<1	<1
Chromium	ppm	ASTM D5185(m)	>15	**<1**	0	0
Nickel	ppm	ASTM D5185(m)	>15	**<1**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**18**	<1	0
Lead	ppm	ASTM D5185(m)	>100	**<1**	0	0
Copper	ppm	ASTM D5185(m)	>200	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>25	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	**0**	0	0
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)	57	**2**	0	<1
Barium	ppm	ASTM D5185(m)	0.0	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	2.0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0.0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0.0	**9**	0	0
Calcium	ppm	ASTM D5185(m)	42	▲ **254**	▲ <1	▲ 1
Phosphorus	ppm	ASTM D5185(m)	399	**261**	381	388
Zinc	ppm	ASTM D5185(m)	13	**16**	1	1
Sulfur	ppm	ASTM D5185(m)	13649	**8915**	▲ 227	▲ 95
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	▲ **51**	15	16
Sodium	ppm	ASTM D5185(m)		**1**	0	<1
Potassium	ppm	ASTM D5185(m)	>20	**11**	<1	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**185382**	22445	27530
Particles >6µm		ASTM D7647	>320000	**138072**	5331	7730
Particles >14µm		ASTM D7647	>160000	**9422**	178	382
Particles >21µm		ASTM D7647	>40000	**560**	26	73
Particles >38µm		ASTM D7647	>10000	**5**	0	1
Particles >71µm		ASTM D7647	>2500	**1**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/25/24	**25/24/20**	22/20/15	22/20/16

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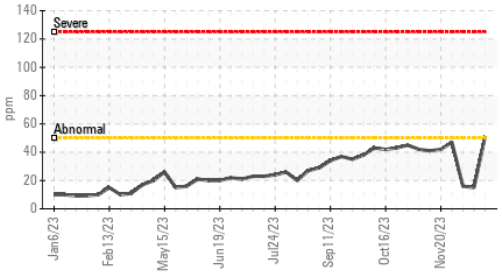
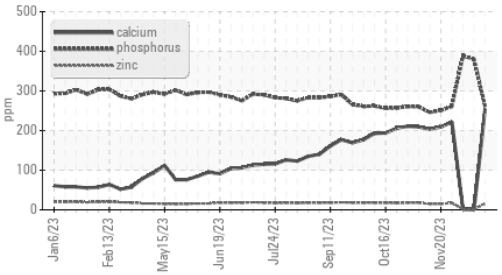
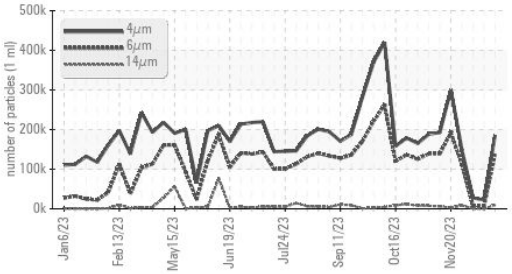
Silicon (ppm)



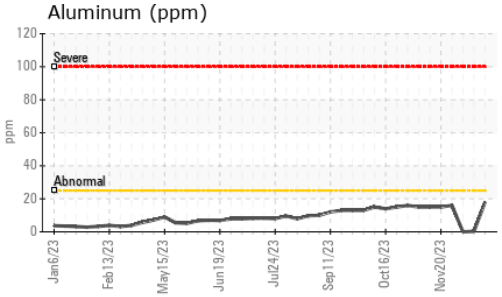
Additives



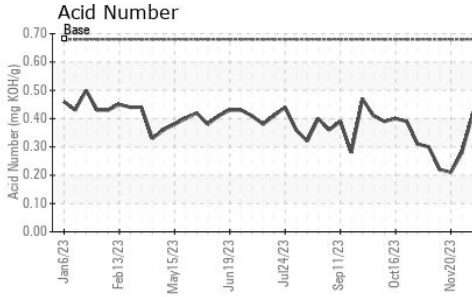
Particle Trend



Aluminum (ppm)



Acid Number

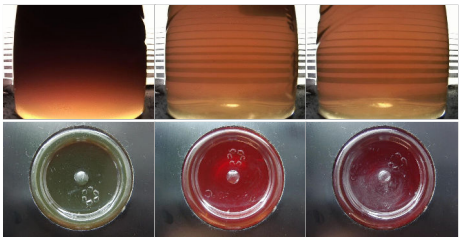


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.68	**0.27**	0.48	0.42

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	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

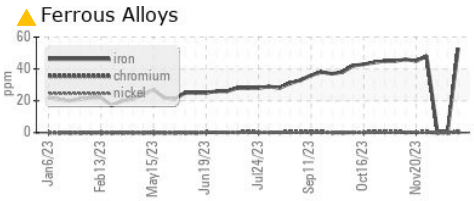
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	275	**309**	▲ 688	▲ 685

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

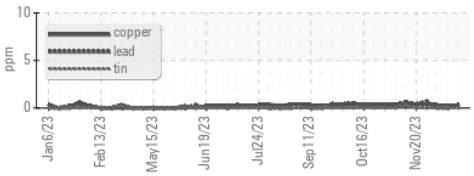


GRAPHS

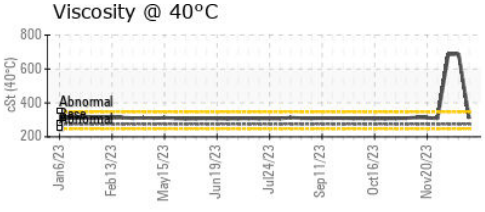
Ferrous Alloys



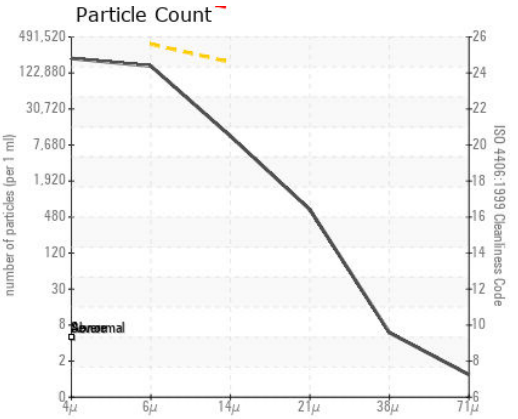
Non-ferrous Metals



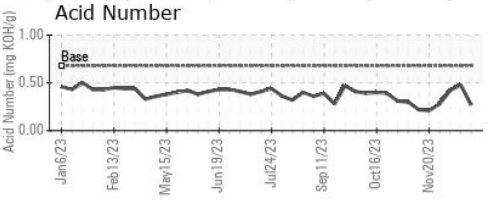
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0883473 **Recieved** : 11 Jan 2024
Lab Number : 02608294 **Diagnosed** : 15 Jan 2024
Unique Number : 5709380 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: 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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