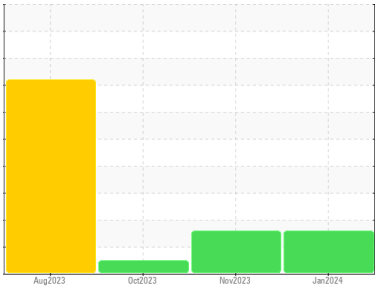
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
KOVATERA MC100F FMC037
Component
Diesel Engine
Fluid
MOBIL 15W40 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a moderate concentration of dirt present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC**	WC0879212	WC0871927
Sample Date		Client Info		**16 Jan 2024**	13 Nov 2023	26 Oct 2023
Machine Age	hrs	Client Info		**7922**	7596	7503
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	Changed	N/A
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**50**	66	52
Chromium	ppm	ASTM D5185(m)	>20	**3**	4	3
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	**8**	8	7
Lead	ppm	ASTM D5185(m)	>40	**<1**	2	<1
Copper	ppm	ASTM D5185(m)	>330	**4**	15	14
Tin	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**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)		**30**	24	27
Barium	ppm	ASTM D5185(m)		**0**	<1	<1
Molybdenum	ppm	ASTM D5185(m)		**40**	46	45
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**505**	597	588
Calcium	ppm	ASTM D5185(m)		**1705**	1778	1741
Phosphorus	ppm	ASTM D5185(m)		**749**	803	800
Zinc	ppm	ASTM D5185(m)		**886**	983	984
Sulfur	ppm	ASTM D5185(m)		**2206**	2047	2092
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	▲ **25**	▲ 27	23
Sodium	ppm	ASTM D5185(m)	>118	**7**	9	8
Potassium	ppm	ASTM D5185(m)	>20	**4**	3	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**1.3**	1.5	1.2
Nitration	Abs/cm	ASTM D7624*	>20	**10.1**	10.8	9.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	**26.0**	26.8	25.7

OIL ANALYSIS REPORT

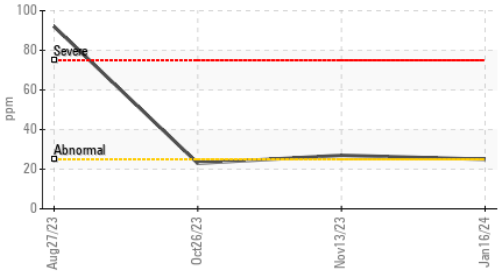
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**23.3**	24.0	22.9

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

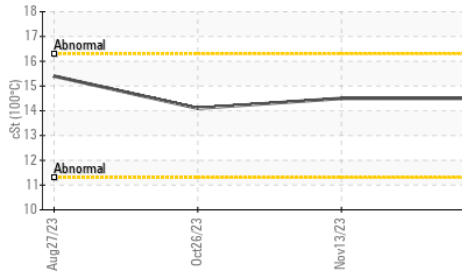
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		**14.5**	14.5	14.1

GRAPHS

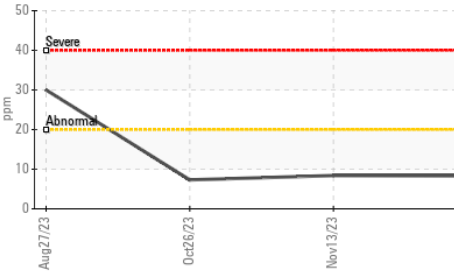
Silicon (ppm)



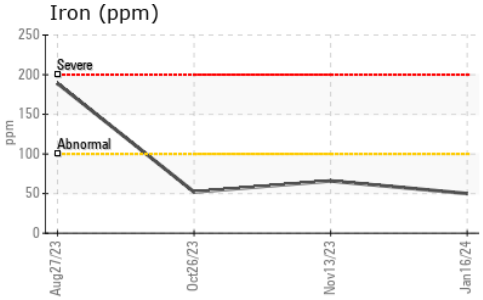
Viscosity @ 100°C



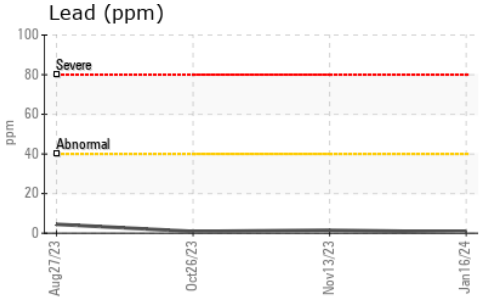
Aluminum (ppm)



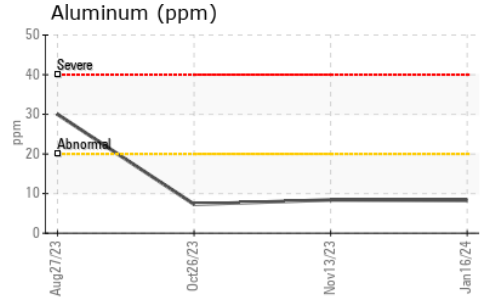
Iron (ppm)



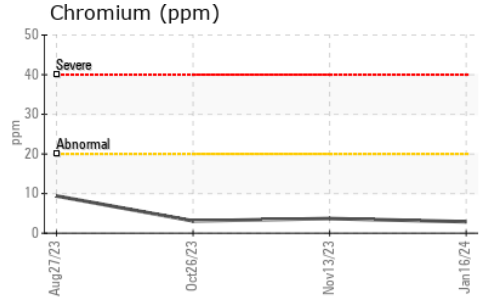
Lead (ppm)



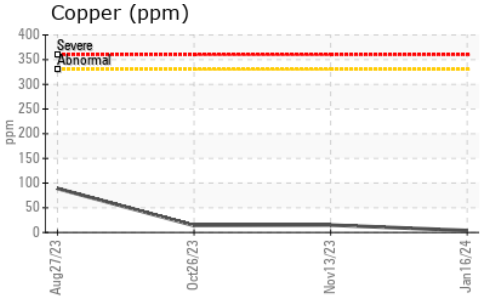
Aluminum (ppm)



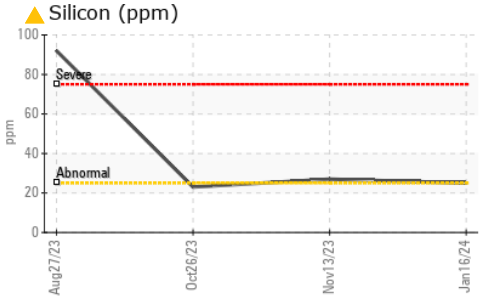
Chromium (ppm)



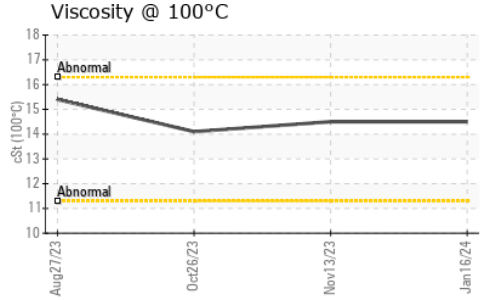
Copper (ppm)



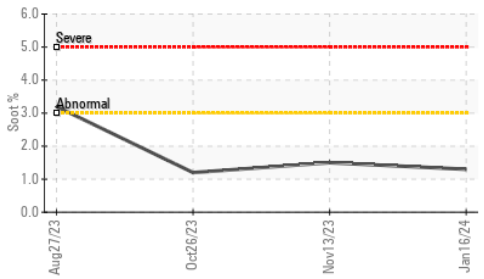
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02609244
Unique Number : 5710330
Test Package : MOB 1

Recieved : 17 Jan 2024
Diagnosed : 17 Jan 2024
Diagnostician : Kevin Marson

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.

Agnico Eagle Canada
1350 Government Rd. W, MACASSA COMPLEX
Kirkland Lake, ON
CA P2N 3J1
Contact: Mike Campbell
mike.campbell@agnicoeagle.com
T: (705)567-5208
F: (705)567-5221