



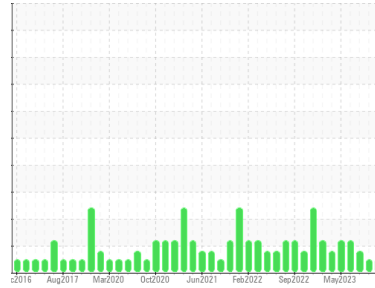
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
NEW FLYER 1007
 Component
Diesel Engine
 Fluid
SAFETY-KLEEN PERFORMANCE PLUS XHD-7 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0878166	WC0849974	WC0849981
Sample Date	Client Info		20 Dec 2023	27 Oct 2023	15 Sep 2023
Machine Age	kms	Client Info	1021088	101018	100677
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	N/A	N/A
Sample Status			NORMAL	NORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	▲ 2.6
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	0.0	0.0

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>75	58	58	75
Chromium	ppm	ASTM D5185(m)	>5	2	1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	3	3	5
Lead	ppm	ASTM D5185(m)	>25	2	2	<1
Copper	ppm	ASTM D5185(m)	>100	13	1	1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
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)		<1	<1	2
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		62	70	64
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		989	1116	995
Calcium	ppm	ASTM D5185(m)		1089	1221	1040
Phosphorus	ppm	ASTM D5185(m)		967	1079	1086
Zinc	ppm	ASTM D5185(m)		1183	1367	1188
Sulfur	ppm	ASTM D5185(m)		2378	2636	2503
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

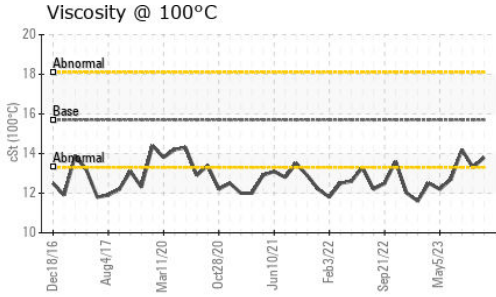
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	4	4
Sodium	ppm	ASTM D5185(m)		10	17	32
Potassium	ppm	ASTM D5185(m)	>20	8	10	25

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	1.6	1.3	0.5
Nitration	Abs/cm	ASTM D7624*	>20	14.3	12.9	8.6
Sulfation	Abs./1mm	ASTM D7415*	>30	28.3	27.1	21.1



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	28.7	26.9	17.4

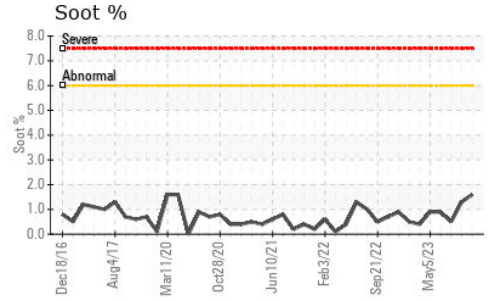
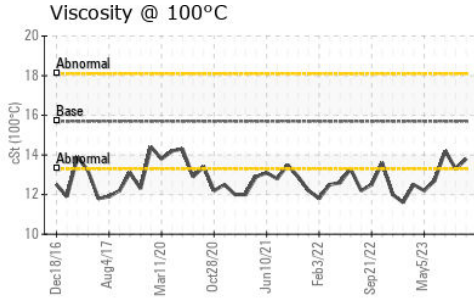
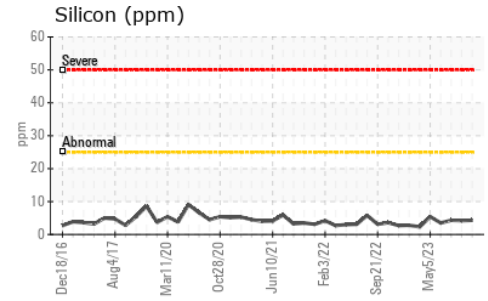
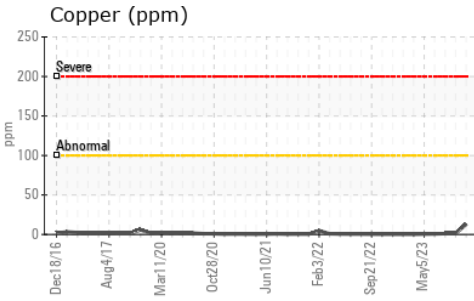
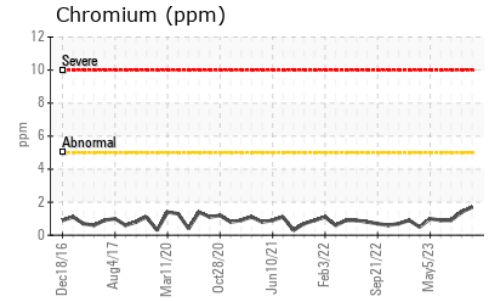
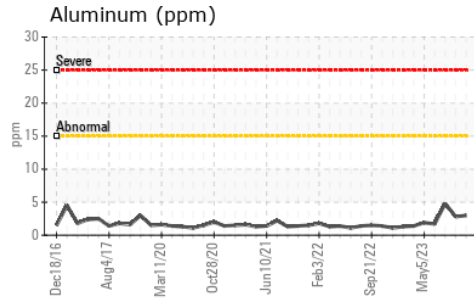
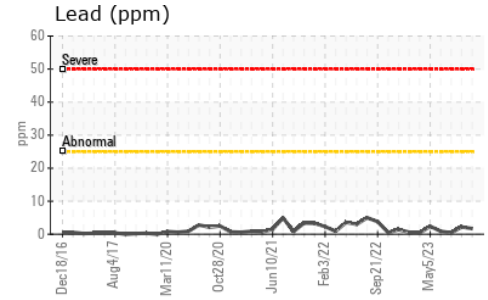
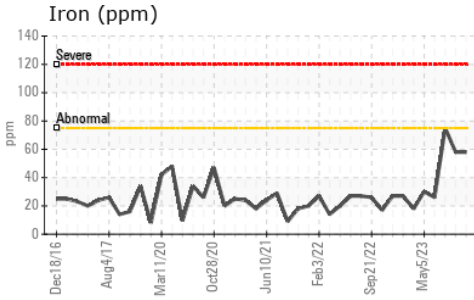
VISUAL

	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)	15.7	13.8	13.3	14.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0878166 **Received** : 02 Jan 2024
Lab Number : **02605779** **Diagnosed** : 02 Jan 2024
Unique Number : 5698864 **Diagnostician** : Kevin Marson
Test Package : MOB 1

CITY OF HAMILTON
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 T: (905)546-2424
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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.