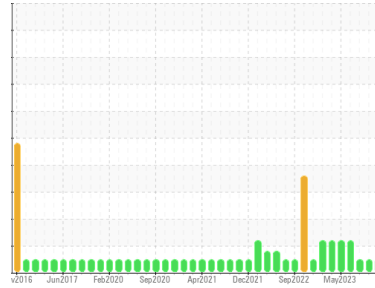




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
NEW FLYER 1104
 Component
Diesel Engine
 Fluid
SAFETY-KLEEN PERFORMANCE PLUS XHD-7 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0877942	WC0849785	WC0830253
Sample Date	Client Info		21 Mar 2024	26 Sep 2023	11 Aug 2023
Machine Age	kms	Client Info	851490	837123	827233
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
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	15	23	13
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	2	1	<1
Lead	ppm	ASTM D5185(m)	>25	2	<1	0
Copper	ppm	ASTM D5185(m)	>100	1	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)		21	1	1
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		50	68	67
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		811	994	993
Calcium	ppm	ASTM D5185(m)		1133	1065	1032
Phosphorus	ppm	ASTM D5185(m)		695	1035	1094
Zinc	ppm	ASTM D5185(m)		841	1228	1202
Sulfur	ppm	ASTM D5185(m)		1866	2498	2602
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

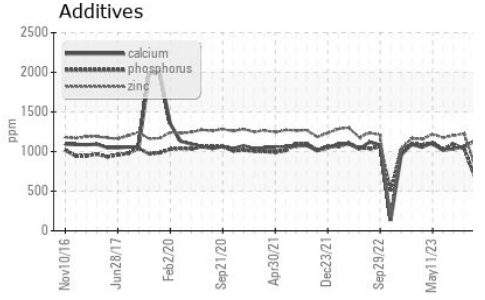
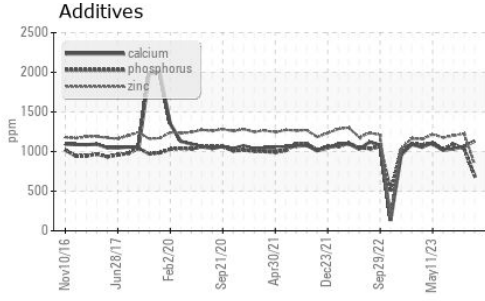
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	2	11	9
Sodium	ppm	ASTM D5185(m)		2	112	109
Potassium	ppm	ASTM D5185(m)	>20	0	46	46

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	0.9	1.4	0.9
Nitration	Abs/cm	ASTM D7624*	>20	11.5	11.1	8.5
Sulfation	Abs./1mm	ASTM D7415*	>30	23.5	24.3	23.0



OIL ANALYSIS REPORT

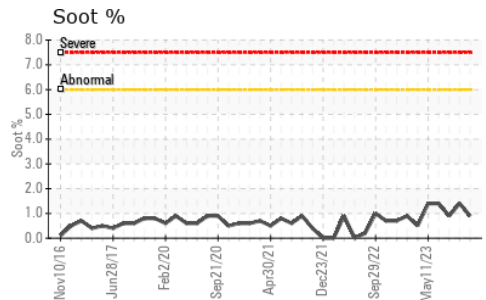
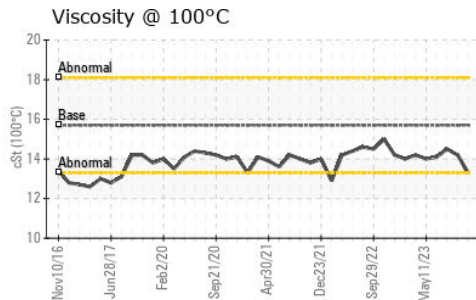
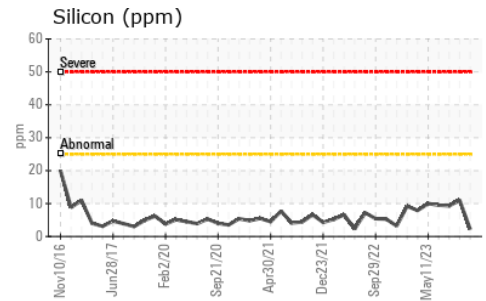
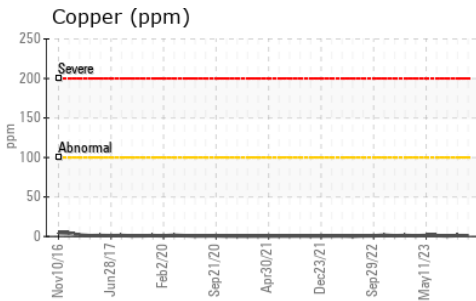
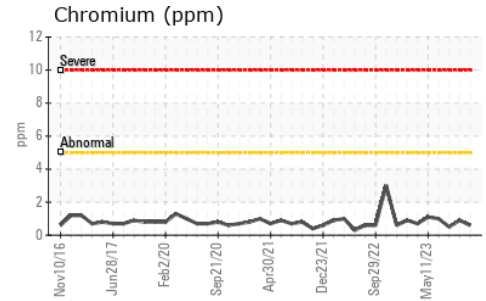
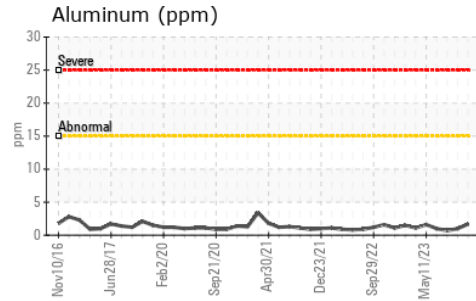
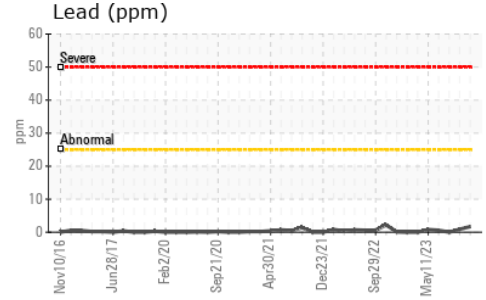
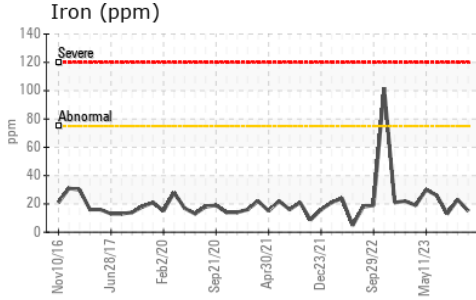


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	22.4	19.9	17.2

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	13.3	14.2	14.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0877942
Lab Number : **02624618**
Unique Number : 5749737
Test Package : MOB 1
Received : 26 Mar 2024
Tested : 26 Mar 2024
Diagnosed : 26 Mar 2024 - Kevin Marson

CITY OF HAMILTON
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 jeff.parr@hamilton.ca
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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.