

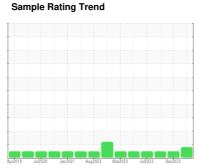
OIL ANALYSIS REPORT



Area [1098] **NEW FLYER 1404**

Component **Diesel Engine**

VALVOLINE 15W40 (--- GAL)





DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

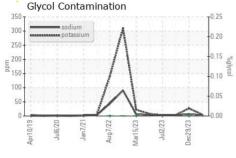
Fluid Condition

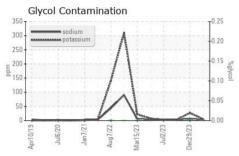
The oil is no longer serviceable due to the presence of contaminants.

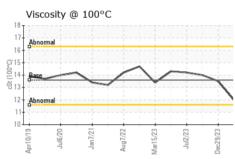
- GAL)		Apr2019 Ji	ul2020 Jan2021 Aug	2022 Mar2023 Jul2023	Dec2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0891760	WC0875082	WC0828583
Sample Date		Client Info		11 Mar 2024	29 Dec 2023	04 Aug 2023
Machine Age	kms	Client Info		519431	501520	0
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATIO	V	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)	>100	10	8	8
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	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)	39	9	10	28
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	49	5	10	33
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	616	46	47	35
Calcium	ppm	ASTM D5185(m)	1554	2056	2176	2196
Phosphorus	ppm	ASTM D5185(m)	899	772	858	971
Zinc	ppm	ASTM D5185(m)	1069	904	966	1097
Sulfur	ppm	ASTM D5185(m)	2624	2615	3029	3046
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS	5	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	3	4	4
Sodium	ppm	ASTM D5185(m)		2	7	3
Potassium	ppm	ASTM D5185(m)	>20	5	27	3
Fuel	%	ASTM D7593*	>5	^ 7.4	<1.0	<1.0
Glycol	%	ASTM D7922*		0.0	0.0	NEG
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.5	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	9.0	8.0	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	19.6	21.6



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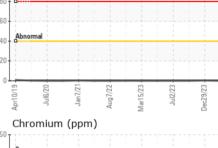
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.3	12.3	15.9
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	12.0	13.5	14.0
GRAPHS						

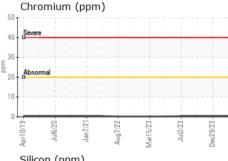
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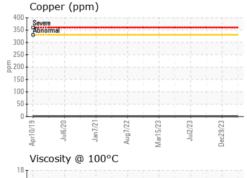
Lead (ppm)

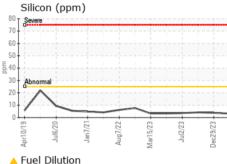
Iron (p	pm)					
200 - Severe						
150 - Abnormal						
100 - Abnormal						-
50						
Apr10/19	Jul6/20 +	Aug7/22 -	Mar15/23	Jul2/23	Dec29/23 +	-
Alumir	ium (ppm)				

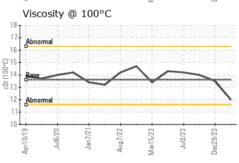


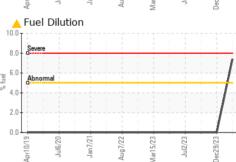














CALA ISO 17025:2017 Accredited

Laboratory Sample No.

: WC0891760 Lab Number : 02625575 Unique Number : 5750694

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received **Tested**

: 03 Apr 2024 Diagnosed

: 03 Apr 2024 - Wes Davis

: 01 Apr 2024

Test Package: MOB 1 (Additional Tests: FUELDILUTION, Glycol, PercentFuel) 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.

MVT Canadian Bus

133 Welham Road Barrie, ON **CA L4N 8Y3**

Contact: Frank Mastromarco frank.mastromarco@mvtransit.com T: (709)792-5033

F: