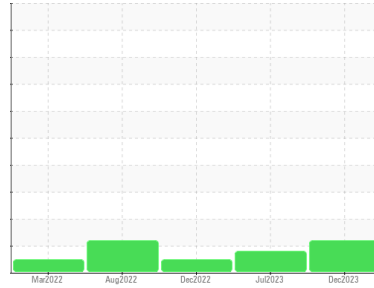




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
[42511089]
 Machine Id
222209

Component
Diesel Engine
 Fluid

DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

Metal levels are typical for a new component breaking in.

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. Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

Phosphorus ppm levels are abnormally low.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0853230	WC0796172	WC0737794
Sample Date	Client Info	09 Dec 2023	07 Jul 2023	17 Dec 2022
Machine Age	kms	88050	71154	53901
Oil Age	kms	0	0	0
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	MARGINAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	NEG	NEG	NEG
Glycol	WC Method	NEG	0.0	NEG

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>90	86	41	59
Chromium	ppm	ASTM D5185(m)	>20	4	2	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	44	28	44
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	4	2	6
Tin	ppm	ASTM D5185(m)	>15	0	0	<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)	250	31	57	45
Barium	ppm	ASTM D5185(m)	10	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	100	4	4	13
Manganese	ppm	ASTM D5185(m)		2	<1	2
Magnesium	ppm	ASTM D5185(m)	450	740	732	680
Calcium	ppm	ASTM D5185(m)	3000	1364	1299	1340
Phosphorus	ppm	ASTM D5185(m)	1150	640	661	687
Zinc	ppm	ASTM D5185(m)	1350	763	749	753
Sulfur	ppm	ASTM D5185(m)	4250	2490	2479	2373
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

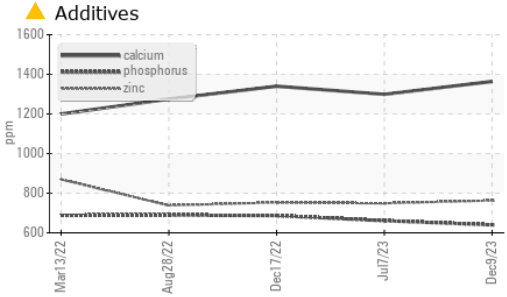
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>25	10	8	14
Sodium	ppm	ASTM D5185(m)		6	4	4
Potassium	ppm	ASTM D5185(m)	>20	73	47	103
Fuel	%	ASTM D7593*	>3.0	1.2	2.3	<1.0

INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	>6	0.7	0.4	0.4
Nitration	Abs/cm	ASTM D7624*	>20	11.7	10.4	10.9
Sulfation	Abs./1mm	ASTM D7415*	>30	27.0	22.4	24.6



OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2
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Oxidation	Abs./1mm	ASTM D7414*	>25	22.9	18.7	20.1
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VISUAL	method	limit/base	current	history1	history2
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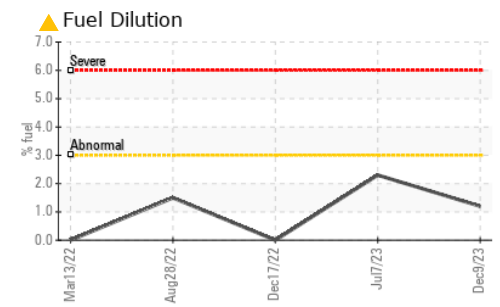
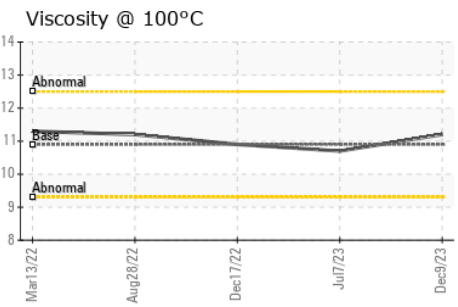
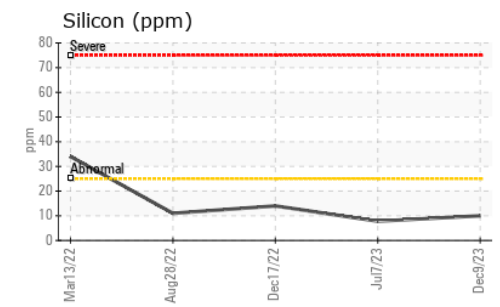
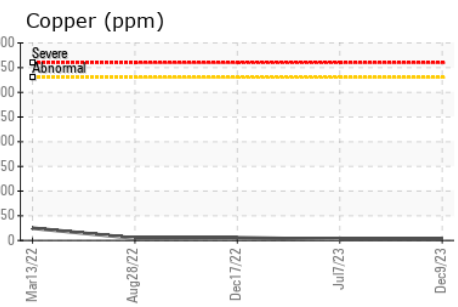
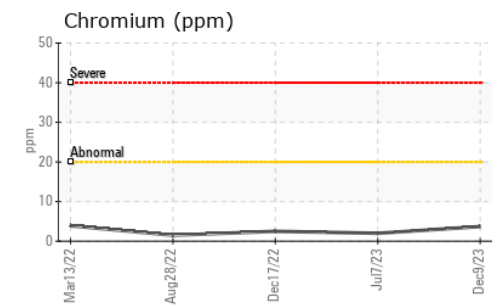
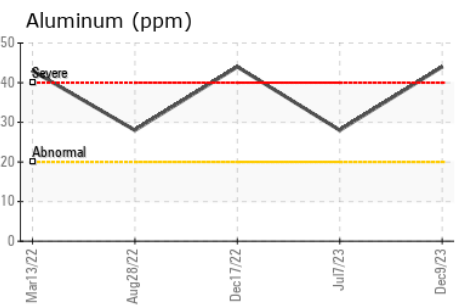
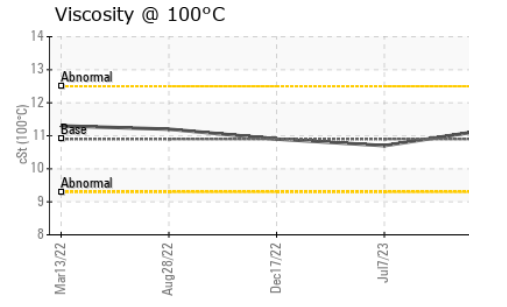
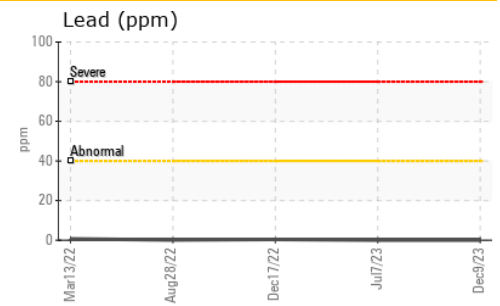
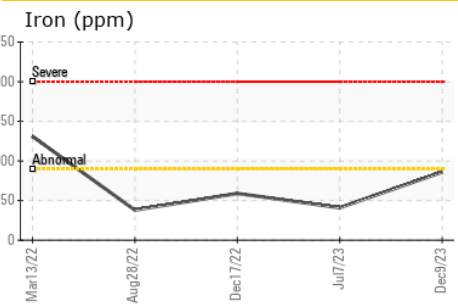
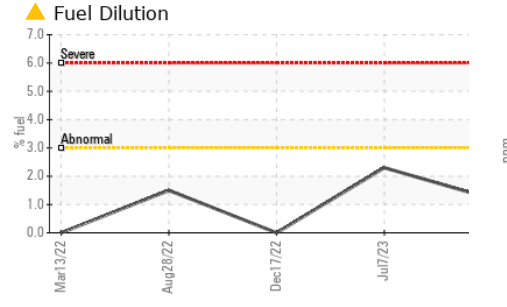
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
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Free Water	scalar	Visual*		NEG	NEG	NEG
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FLUID PROPERTIES	method	limit/base	current	history1	history2
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Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.2	10.7	10.9
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0853230 **Received** : 12 Dec 2023
Lab Number : **02602506** **Diagnosed** : 13 Dec 2023
Unique Number : 5695591 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FUELDILUTION, PercentFuel)

Rush Truck Centres
 7450 Torbram Rd.
 Mississauga, ON
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 Contact: Serdar Okur
 sokur@rushtruckcentres.ca
 T: (905)671-7600
 F:

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.