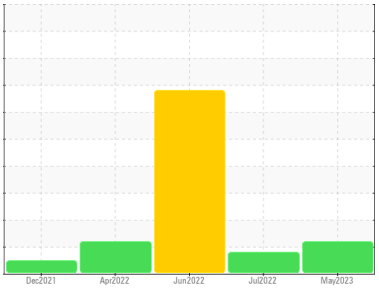
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
202095
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 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. Light fuel dilution occurring.

Fluid Condition
Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0796557**	WC0702579	WC0702643
Sample Date		Client Info		**07 May 2023**	05 Jul 2022	14 Jun 2022
Machine Age	kms	Client Info		**210048**	165619	162584
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**ABNORMAL**	MARGINAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	▲ 0.011

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	**33**	26	38
Chromium	ppm	ASTM D5185(m)	>20	**2**	<1	2
Nickel	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**<1**	<1	0
Silver	ppm	ASTM D5185(m)	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	**16**	5	4
Lead	ppm	ASTM D5185(m)	>40	**2**	0	4
Copper	ppm	ASTM D5185(m)	>330	**1**	2	3
Tin	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	<1	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	**10**	34	31
Barium	ppm	ASTM D5185(m)	10	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	100	**59**	6	5
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	**914**	676	652
Calcium	ppm	ASTM D5185(m)	3000	**1090**	1364	1241
Phosphorus	ppm	ASTM D5185(m)	1150	**1025**	686	▲ 667
Zinc	ppm	ASTM D5185(m)	1350	**1161**	780	▲ 723
Sulfur	ppm	ASTM D5185(m)	4250	**2565**	2529	2288
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**4**	6	7
Sodium	ppm	ASTM D5185(m)	>158	**2**	4	12
Potassium	ppm	ASTM D5185(m)	>20	**35**	6	▲ 19
Fuel	%	ASTM D7593*	>5	▲ **3.2**	▲ 2.4	⬢ 10.8

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	**0.2**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**10.3**	5.2	4.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.6**	15.5	15.1

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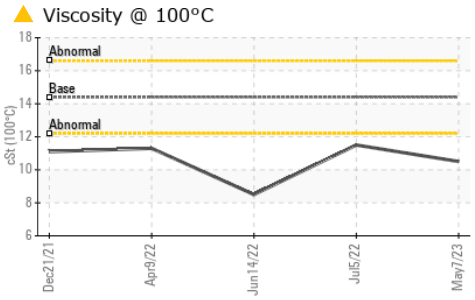
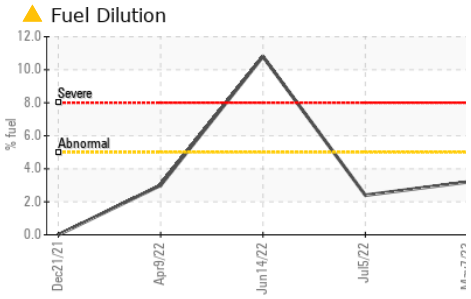


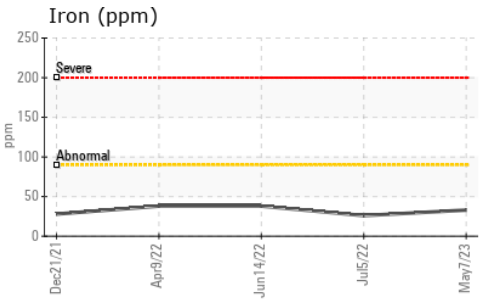


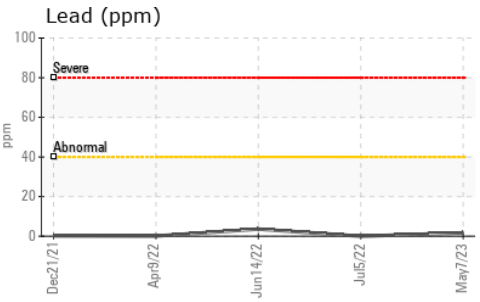
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**17.3**	8.2	6.6

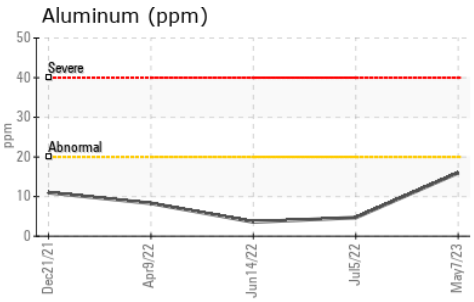
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

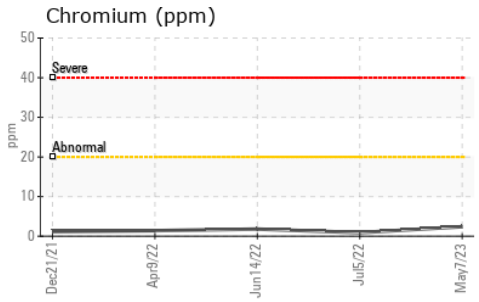
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ **10.5**	11.5	▲ 8.5

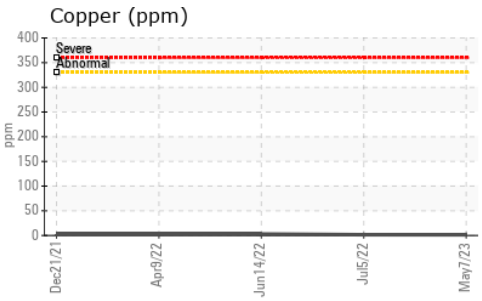
GRAPHS

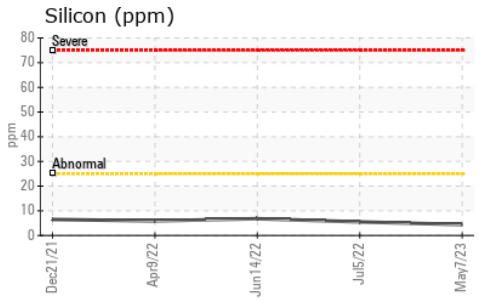


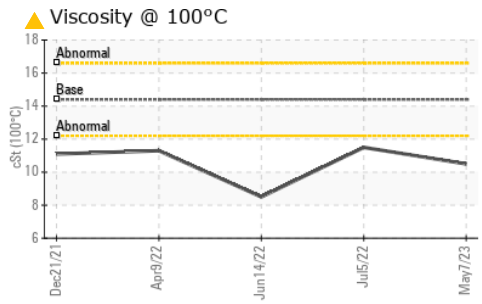


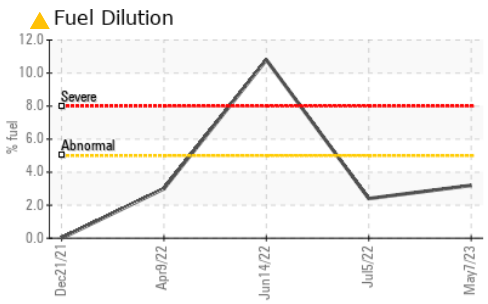












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0796557 **Received** : 16 May 2023
Lab Number : 02557706 **Tested** : 17 May 2023
Unique Number : 5578746 **Diagnosed** : 17 May 2023 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, 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.

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