



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
125 MANITOBA ST BRACEBRIDGE BELL CANADA LOC#331341

Component
Right Diesel Engine

Fluid
ESSO XD-3 EXTRA 15W40 (30 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PN0006031	PN0004398	PN0002935
Sample Date		Client Info		19 Apr 2024	03 Jan 2023	11 Nov 2021
Machine Age	hrs	Client Info		626	602	186
Oil Age	hrs	Client Info		23	0	16
Filter Age	hrs	Client Info		23	0	16
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>120	5	3	5
Chromium	ppm	ASTM D5185(m)	>5	0	0	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>5	<1	<1	2
Lead	ppm	ASTM D5185(m)	>25	1	1	<1
Copper	ppm	ASTM D5185(m)	>40	2	1	1
Tin	ppm	ASTM D5185(m)	>15	1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1

CONTAMINATION

Light fuel dilution occurring.

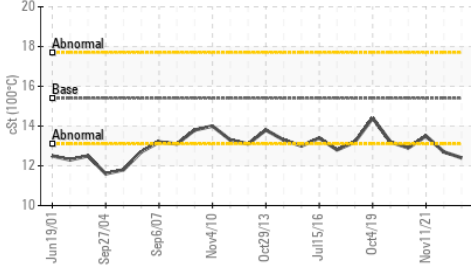
Silicon	ppm	ASTM D5185(m)	>25	3	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	0	1
Fuel	%	ASTM D7593*	>3.0	▲ 1.7	1.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>0.8	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	3.7	3.6	8.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	13.4	14.0	19.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

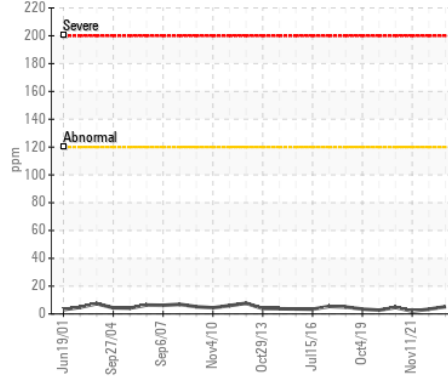
Phosphorus ppm levels are abnormally low. Zinc ppm levels are abnormally low. Visc @ 100°C is abnormally low. Fuel is present in the oil and is lowering the viscosity.

Sodium	ppm	ASTM D5185(m)	>192	5	4	2
Boron	ppm	ASTM D5185(m)		17	9	73
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		7	8	83
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		23	23	66
Calcium	ppm	ASTM D5185(m)	3780	3475	3877	2135
Phosphorus	ppm	ASTM D5185(m)	1370	▲ 694	745	1077
Zinc	ppm	ASTM D5185(m)	1500	▲ 760	764	1195
Sulfur	ppm	ASTM D5185(m)	3800	2414	2510	3366
Oxidation	Abs/.1mm	ASTM D7414*	>25	4.8	4.8	13.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.4	12.7	13.5

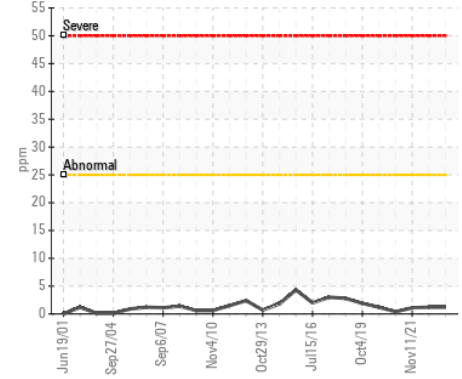
▲ Viscosity @ 100°C



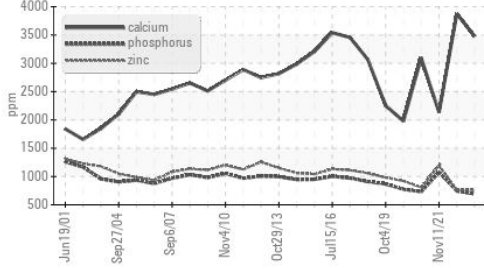
Iron (ppm)



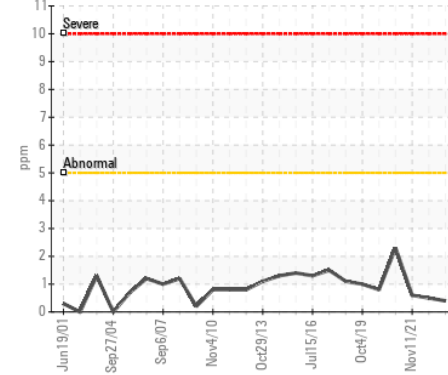
Lead (ppm)



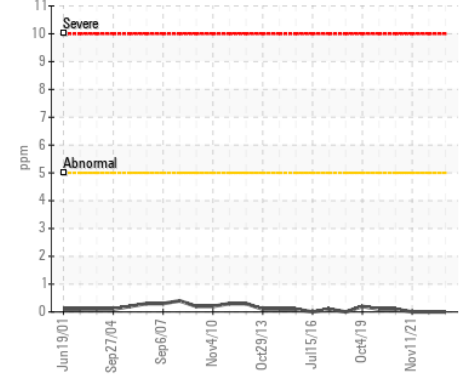
▲ Additives



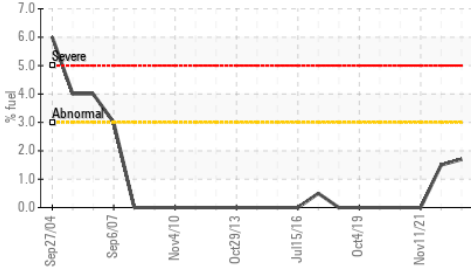
Aluminum (ppm)



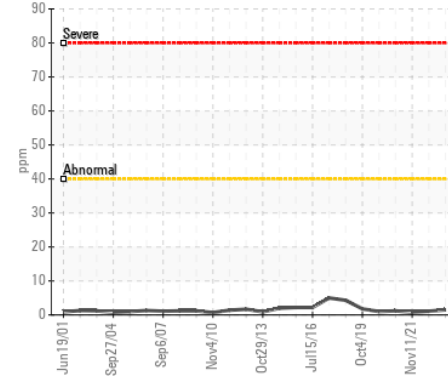
Chromium (ppm)



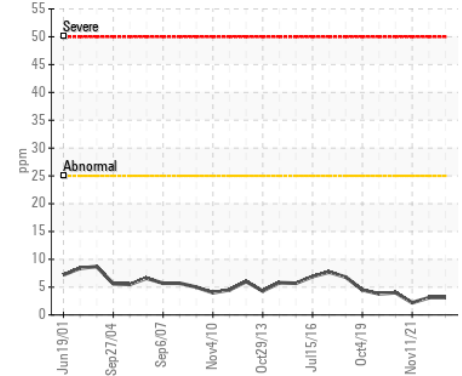
▲ Fuel Dilution



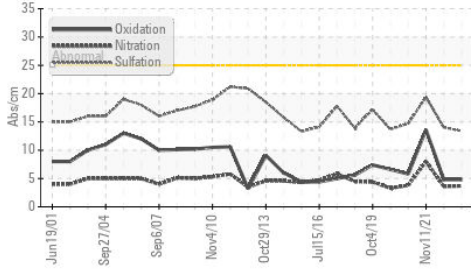
Copper (ppm)



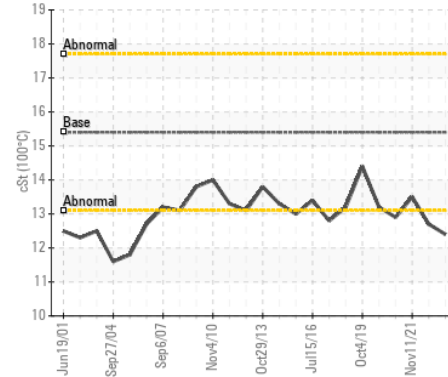
Silicon (ppm)



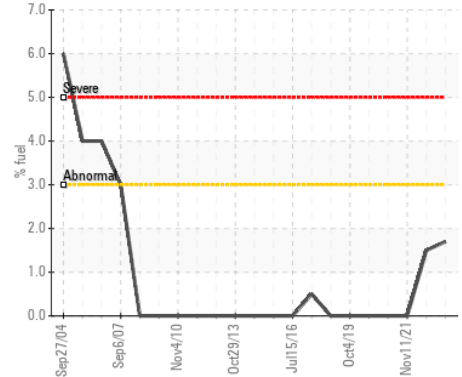
FT-IR (Direct Trend)



▲ Viscosity @ 100°C



▲ Fuel Dilution



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PN0006031

Lab Number : 02631528

Unique Number : 5772681

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

Received : 26 Apr 2024

Tested : 29 Apr 2024

Diagnosed : 29 Apr 2024 - Wes Davis

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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