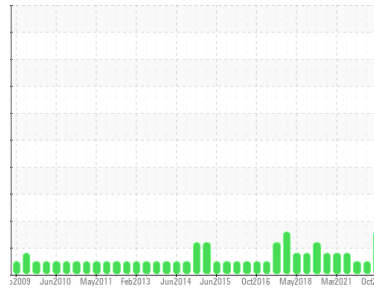




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
NOVA BUS EQ60047

Component
Rear Diesel Engine

Fluid
VALVOLINE 15W40 (24 LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

There is a moderate concentration of dirt present in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0809127	WC0770726	WC0700629
Sample Date	Client Info		11 Oct 2023	21 Feb 2023	27 Jun 2022
Machine Age	kms	Client Info	912124	889000	852750
Oil Age	kms	Client Info	10000	10000	10000
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>75	29	13	19
Chromium	ppm	ASTM D5185(m)	>5	1	<1	2
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>15	4	3	3
Lead	ppm	ASTM D5185(m)	>25	2	0	<1
Copper	ppm	ASTM D5185(m)	>100	2	<1	2
Tin	ppm	ASTM D5185(m)	>4	<1	0	0
Antimony	ppm	ASTM D5185(m)		0	0	<1
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	7	63	2
Barium	ppm	ASTM D5185(m)	1	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	49	16	61	61
Manganese	ppm	ASTM D5185(m)	1	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	616	210	558	1010
Calcium	ppm	ASTM D5185(m)	1554	2138	1648	1128
Phosphorus	ppm	ASTM D5185(m)	899	943	1118	1038
Zinc	ppm	ASTM D5185(m)	1069	1126	1189	1255
Sulfur	ppm	ASTM D5185(m)	2624	2897	2785	2594
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	▲ 29	4	8
Sodium	ppm	ASTM D5185(m)		7	2	5
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	0.7	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	10.1	7.6	4.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.0	22.6	15.3

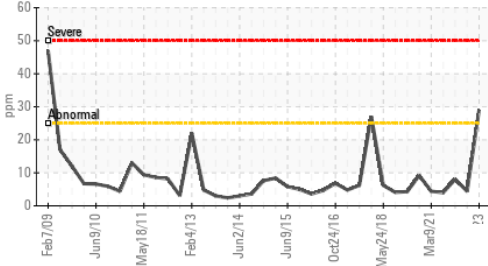
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.6	16.9	6.4

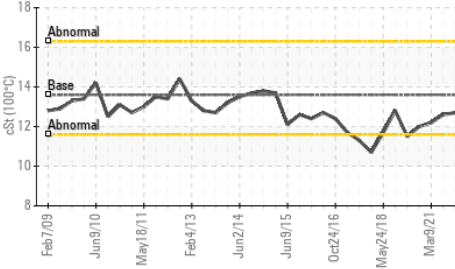


OIL ANALYSIS REPORT

▲ Silicon (ppm)



Viscosity @ 100°C



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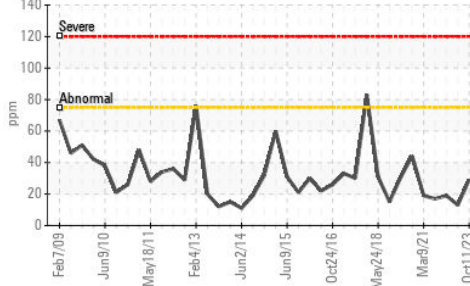
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
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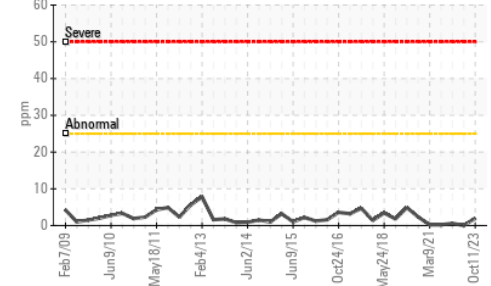
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	13.1	12.7
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GRAPHS

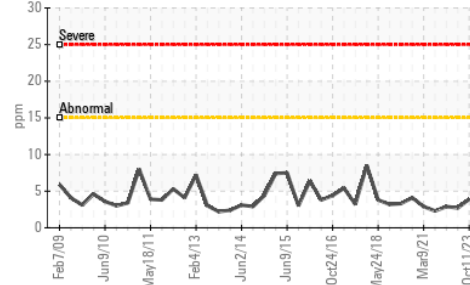
Iron (ppm)



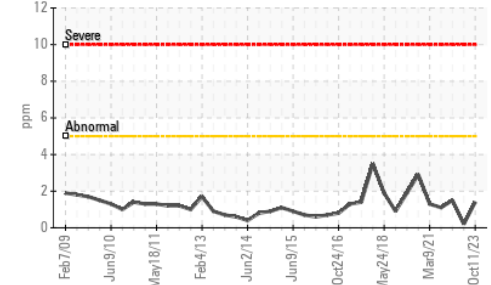
Lead (ppm)



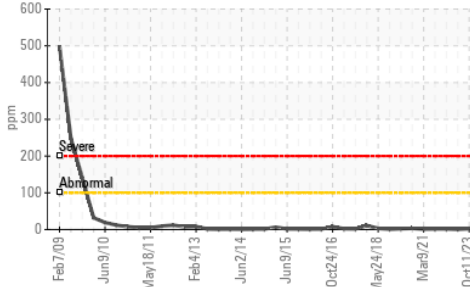
Aluminum (ppm)



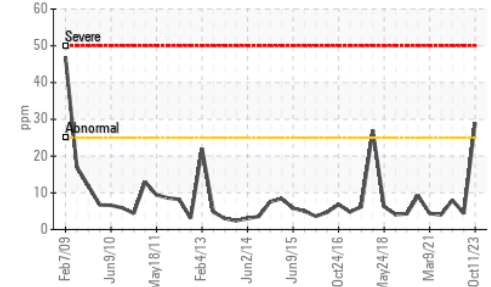
Chromium (ppm)



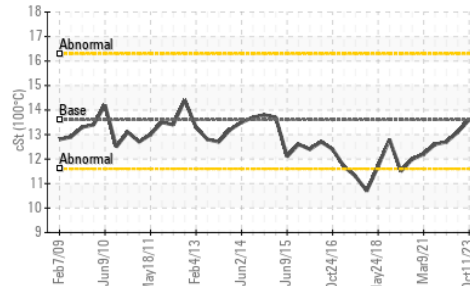
Copper (ppm)



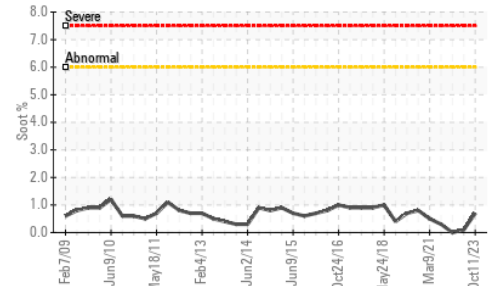
▲ Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0809127
Lab Number : 02589136
Unique Number : 5658202
Test Package : MOB 1

Received : 16 Oct 2023
Diagnosed : 16 Oct 2023
Diagnostician : Kevin Marson

CITY OF PETERBOROUGH
 791 WEBBER AVENUE., MUNICIPAL OPERATIONS CENTRE
 PETERBOROUGH, ON
 CA K9J 8N3

Contact: Frank Curran
 fcurran@peterborough.ca
 T: (705)742-7777
 F: (705)743-3223

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.