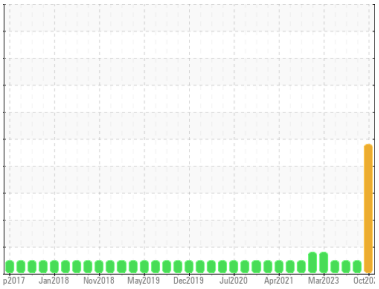
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
NOVA BUS 1701
Component
Diesel Engine
Fluid
VALVOLINE 15W40 (--- GAL)

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
High 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		**WC0858048**	WC0780471	WC0805032
Sample Date		Client Info		**18 Oct 2023**	18 Jun 2023	16 May 2023
Machine Age	kms	Client Info		**502582**	484491	476083
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	N/A	N/A
Sample Status				**SEVERE**	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	**41**	7	8
Chromium	ppm	ASTM D5185(m)	>5	**<1**	<1	0
Nickel	ppm	ASTM D5185(m)	>4	**0**	0	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	<1
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	**2**	1	2
Lead	ppm	ASTM D5185(m)	>25	**<1**	0	0
Copper	ppm	ASTM D5185(m)	>100	**17**	2	3
Tin	ppm	ASTM D5185(m)	>4	**<1**	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	**14**	83	88
Barium	ppm	ASTM D5185(m)	1	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	49	**12**	12	12
Manganese	ppm	ASTM D5185(m)	1	**1**	0	<1
Magnesium	ppm	ASTM D5185(m)	616	**25**	79	87
Calcium	ppm	ASTM D5185(m)	1554	**2248**	2116	2299
Phosphorus	ppm	ASTM D5185(m)	899	**836**	993	1047
Zinc	ppm	ASTM D5185(m)	1069	**1007**	1140	1199
Sulfur	ppm	ASTM D5185(m)	2624	**2824**	2809	2928
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**54**	4	4
Sodium	ppm	ASTM D5185(m)		**2**	2	2
Potassium	ppm	ASTM D5185(m)	>20	**<1**	4	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	**0.2**	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	**8.0**	8.9	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.5**	22.9	22.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**15.1**	20.2	20.1

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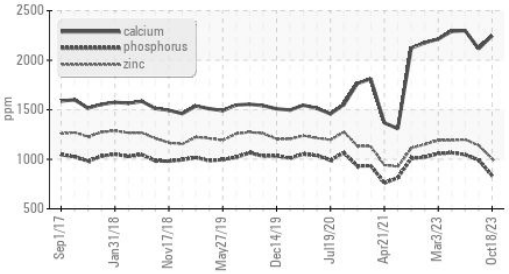
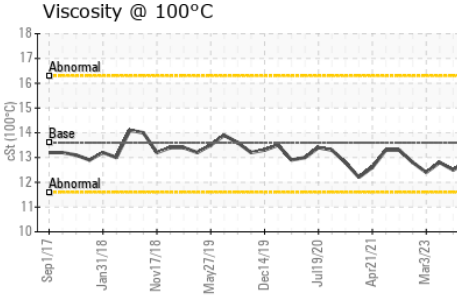
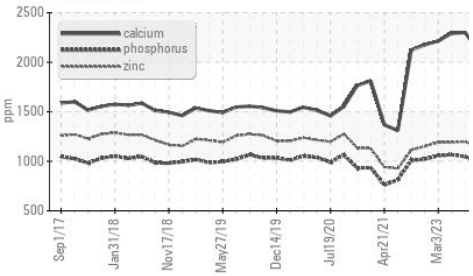
Additives



Viscosity @ 100°C



Additives

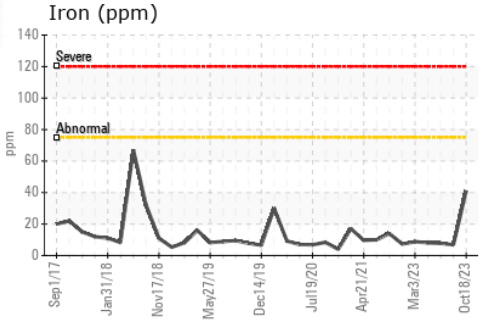


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

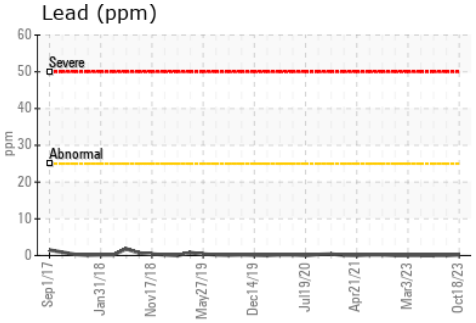
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	**12.6**	12.8	12.5

GRAPHS

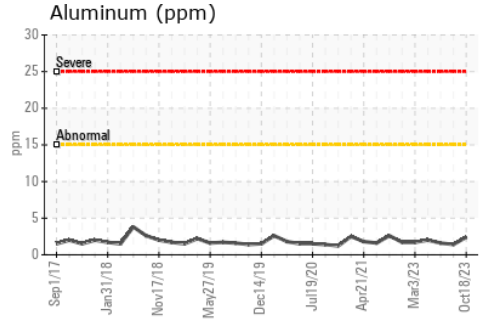
Iron (ppm)



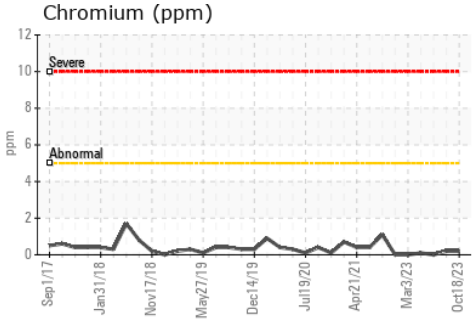
Lead (ppm)



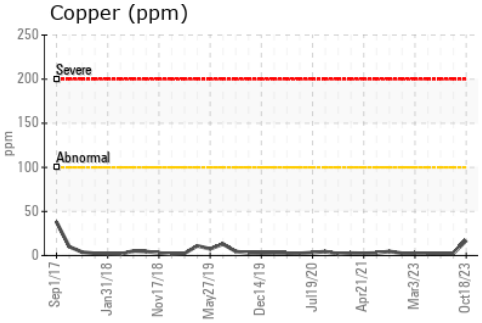
Aluminum (ppm)



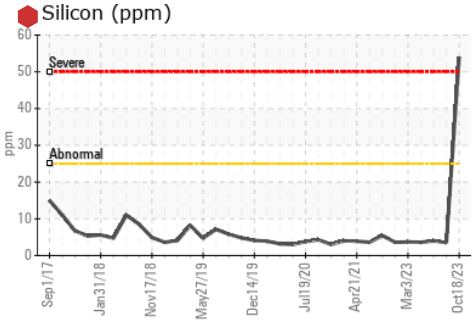
Chromium (ppm)



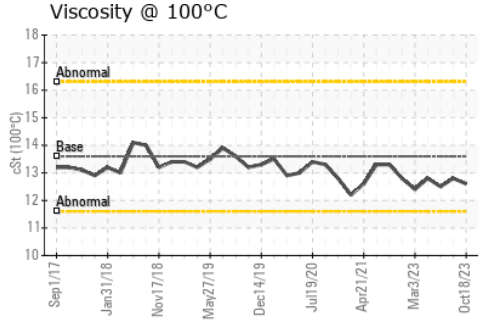
Copper (ppm)



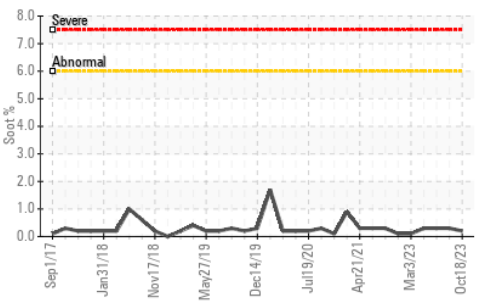
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0858048
Lab Number : 02591739
Unique Number : 5668818
Test Package : MOB 1

Received : 25 Oct 2023
Diagnosed : 25 Oct 2023
Diagnostician : Kevin Marson

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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