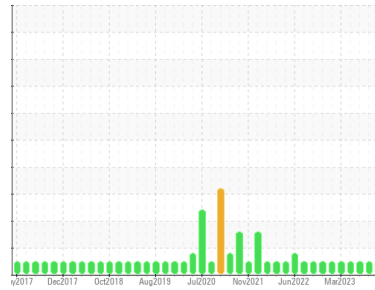




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**NOVA BUS 173**

Component  
**Rear Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0816382</b>	WC0816422	WC0816577
Sample Date	Client Info			<b>04 Oct 2023</b>	15 Aug 2023	04 Jul 2023
Machine Age	kms	Client Info		<b>0</b>	0	0
Oil Age	kms	Client Info		<b>10308</b>	8197	10713
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	<b>17</b>	11	21
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>5</b>	4	7
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>52</b>	78	48
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>&lt;1</b>	3	12
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>17</b>	42	154
Calcium	ppm	ASTM D5185(m)	3780	<b>2205</b>	2154	2074
Phosphorus	ppm	ASTM D5185(m)	1370	<b>883</b>	1016	1005
Zinc	ppm	ASTM D5185(m)	1500	<b>1076</b>	1151	1139
Sulfur	ppm	ASTM D5185(m)	3800	<b>2861</b>	2903	2809
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

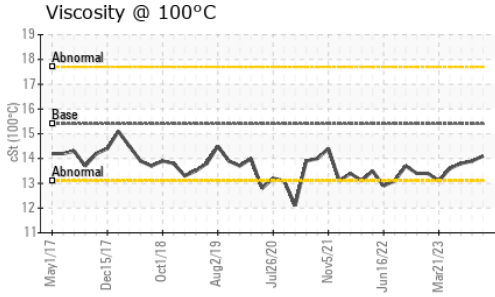
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	3	4
Sodium	ppm	ASTM D5185(m)	>192	<b>2</b>	2	5
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	5	11

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	<b>1</b>	0.7	1.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.5</b>	8.9	10.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>26.8</b>	24.9	26.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>23.9</b>	21.3	24.0



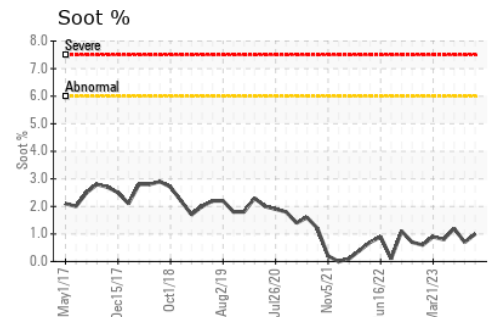
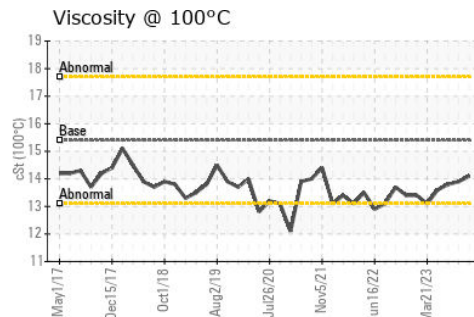
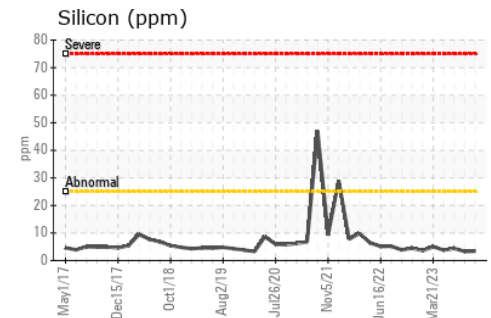
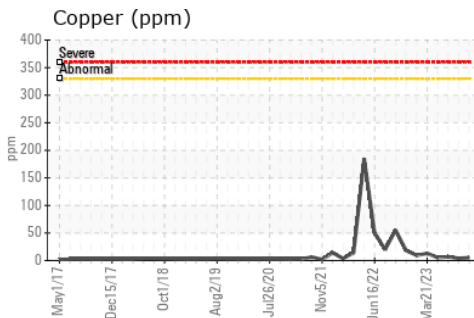
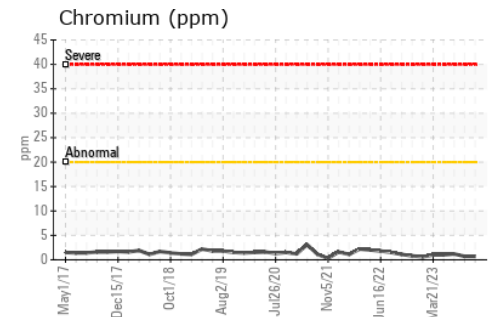
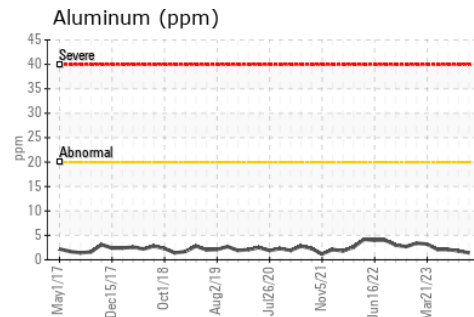
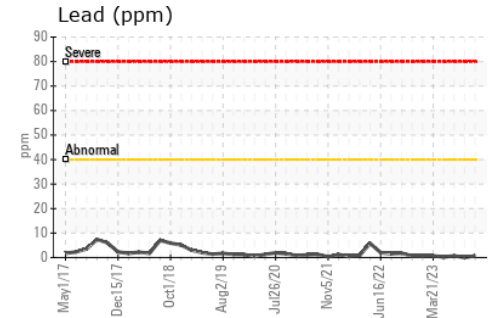
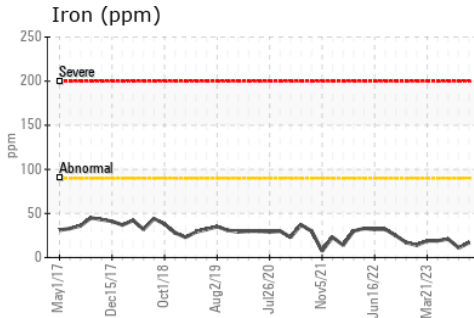
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>14.1</b>	13.9

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0816382      **Received** : 12 Oct 2023  
**Lab Number** : **02588547**      **Diagnosed** : 12 Oct 2023  
**Unique Number** : 5657613      **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**CITY OF THUNDER BAY**  
 AUTO MAINTENANCE STORES, 570 FORT WILLIAM ROAD  
 THUNDER BAY, ON  
 CA P7B 2Z8  
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 F: (807)344-0237

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.