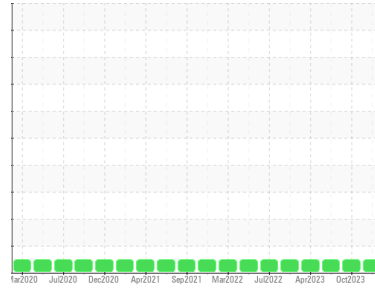




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**4000 Series**  
 Machine Id  
**Navistar 4341**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (16 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>WC0864531</b>	WC0848042	WC0837250
Sample Date	Client Info			<b>09 Dec 2023</b>	01 Oct 2023	22 Jul 2023
Machine Age	mls	Client Info		<b>229915</b>	217633	207145
Oil Age	mls	Client Info		<b>12282</b>	10488	11284
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
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>130	<b>29</b>	19	26
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	2	3
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>125	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
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

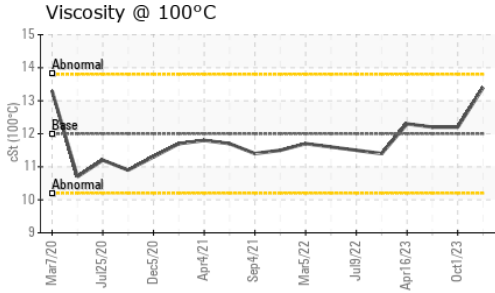
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	<b>2</b>	2	3
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>70</b>	66	64
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>1131</b>	1079	1064
Calcium	ppm	ASTM D5185(m)	1050	<b>1236</b>	1185	1120
Phosphorus	ppm	ASTM D5185(m)	995	<b>1114</b>	1056	1109
Zinc	ppm	ASTM D5185(m)	1180	<b>1387</b>	1323	1274
Sulfur	ppm	ASTM D5185(m)	2600	<b>2644</b>	2533	2534
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>4</b>	3	4
Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>13.9</b>	12.1	12.5
Sulfation	Abs.1mm	ASTM D7415*	>30	<b>26.4</b>	24.5	25.3

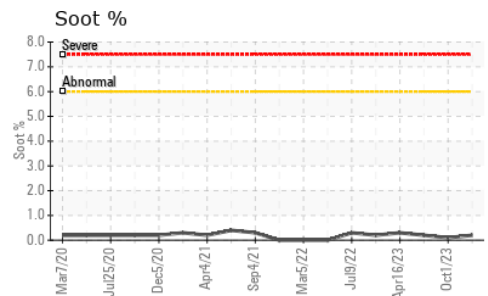
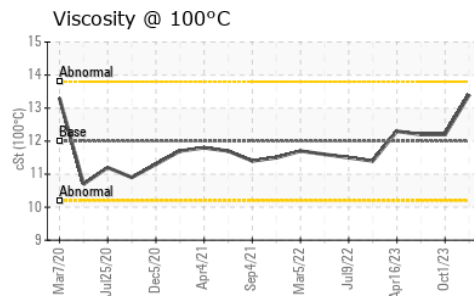
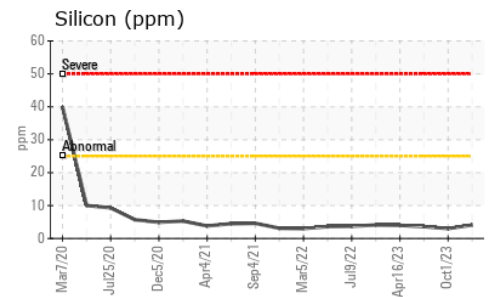
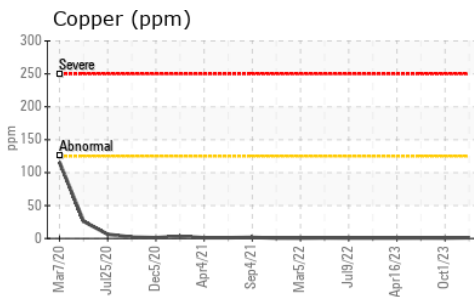
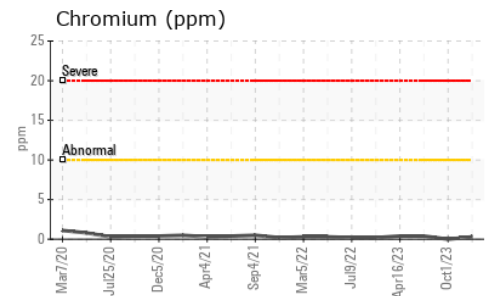
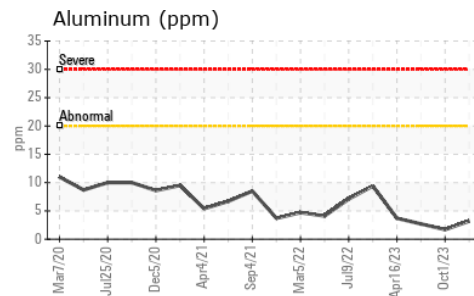
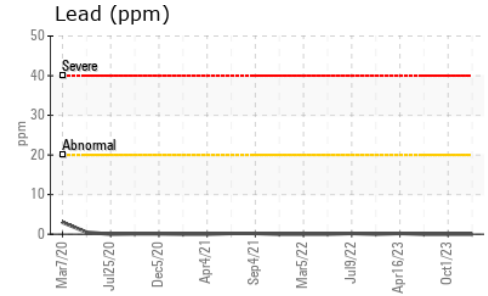
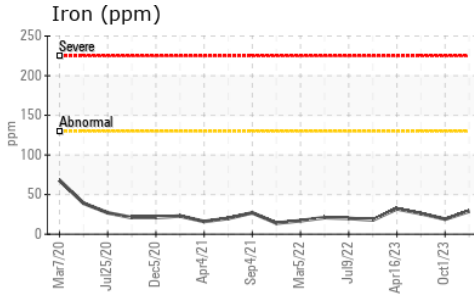


# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>27.9</b>	25.4	25.9
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>13.4</b>	12.2	12.2

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**  
**Sample No.** : WC0864531 **Received** : 12 Dec 2023 1335 SHAWSON DRIVE  
**Lab Number** : **02602482** **Diagnosed** : 12 Dec 2023 MISSISSAUGA, ON  
**Unique Number** : 5695567 **Diagnostician** : Kevin Marson CA L4W 1C4  
**Test Package** : MOB 1

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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