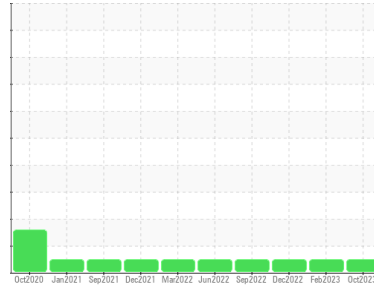




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**3000 Series**  
 Machine Id  
**Navistar 3289**

Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (26 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>WC0848035</b>	WC0785976	WC0759764
Sample Date	Client Info		<b>01 Oct 2023</b>	25 Feb 2023	10 Dec 2022
Machine Age	mls	Client Info	<b>149849</b>	215237	195655
Oil Age	mls	Client Info	<b>19002</b>	19582	22162
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

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>75	<b>43</b>	37	40
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>9</b>	8	7
Lead	ppm	ASTM D5185(m)	>25	<b>2</b>	<1	1
Copper	ppm	ASTM D5185(m)	>100	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
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>	3	<1
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>60</b>	62	61
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>968</b>	993	982
Calcium	ppm	ASTM D5185(m)	1050	<b>1050</b>	1136	1114
Phosphorus	ppm	ASTM D5185(m)	995	<b>956</b>	1091	1078
Zinc	ppm	ASTM D5185(m)	1180	<b>1190</b>	1236	1221
Sulfur	ppm	ASTM D5185(m)	2600	<b>2368</b>	2529	2520
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>	4	5
Sodium	ppm	ASTM D5185(m)		<b>3</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>7</b>	2	3
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG

## INFRA-RED

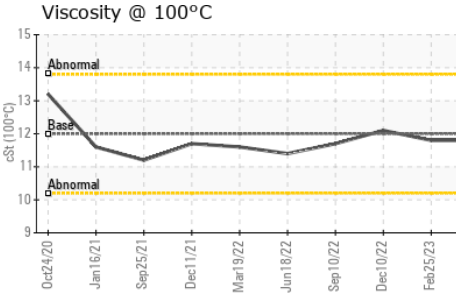
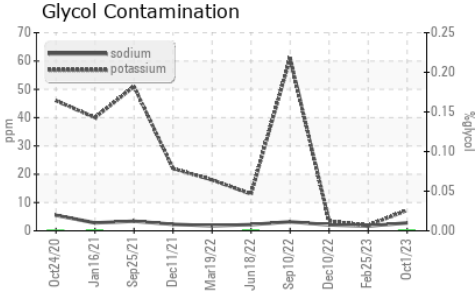
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	<b>0.6</b>	0.6	0.6
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.3</b>	11.2	11.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.2</b>	23.3	23.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>23.4</b>	19.1	20.4



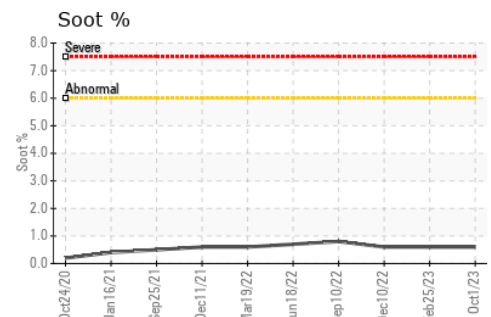
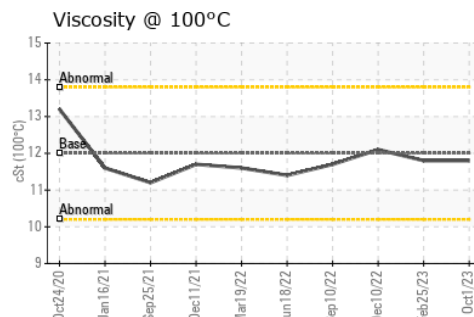
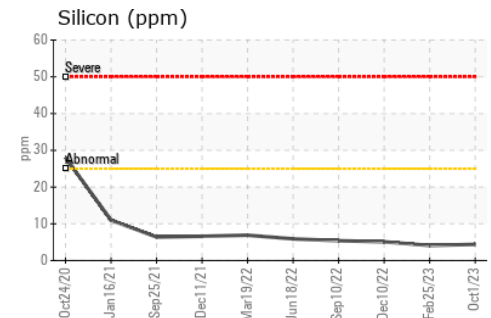
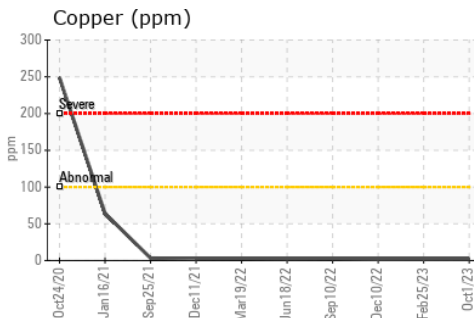
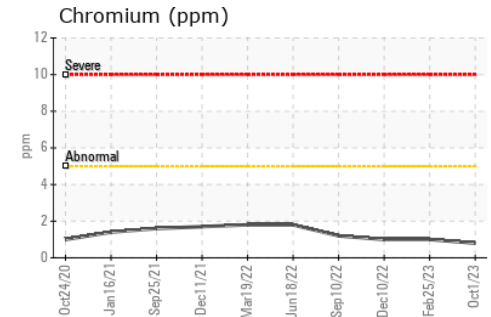
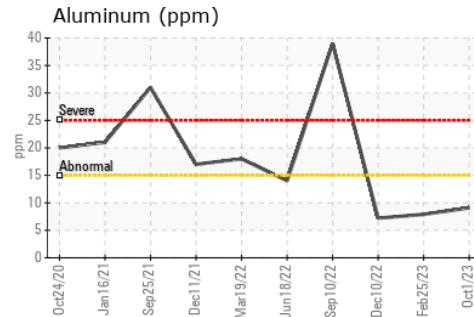
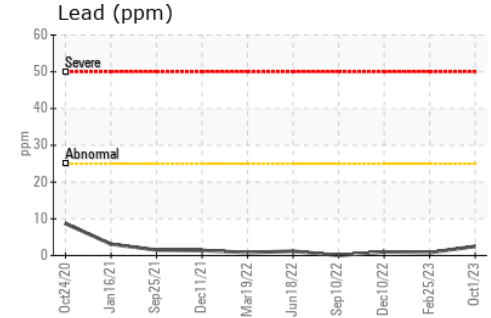
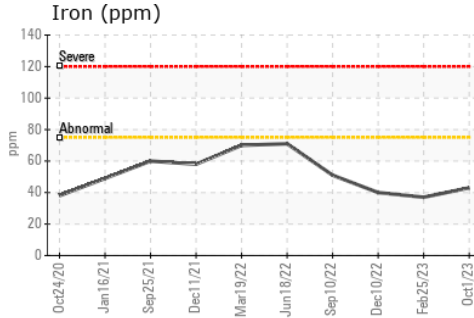
# OIL ANALYSIS REPORT



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)	12.00	11.8	12.1

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**  
**Sample No.** : WC0848035 **Received** : 03 Oct 2023 1335 SHAWSON DRIVE  
**Lab Number** : 02586352 **Diagnosed** : 03 Oct 2023 MISSISSAUGA, ON  
**Unique Number** : 5655418 **Diagnostician** : Wes Davis CA L4W 1C4  
**Test Package** : MOB 1 ( Additional Tests: Glycol ) Contact: Travis Spence

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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