



# OIL ANALYSIS REPORT

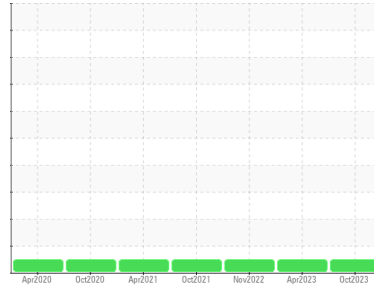
Sample Rating Trend

**NORMAL**

Area  
**4000 Series [126139]**  
Machine Id  
**Navistar 4329**

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>WC0848060</b>	WC0797619	WC0748784
Sample Date	Client Info			<b>12 Oct 2023</b>	15 Apr 2023	05 Nov 2022
Machine Age	mls	Client Info		<b>98395</b>	69379	61729
Oil Age	mls	Client Info		<b>9019</b>	7650	10389
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)	>130	<b>28</b>	28	34
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<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)	>20	<b>4</b>	5	7
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m)	>125	<b>2</b>	1	2
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<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>3</b>	2	8
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>61</b>	59	58
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>978</b>	971	898
Calcium	ppm	ASTM D5185(m)	1050	<b>1048</b>	1077	1110
Phosphorus	ppm	ASTM D5185(m)	995	<b>990</b>	1083	1037
Zinc	ppm	ASTM D5185(m)	1180	<b>1219</b>	1218	1160
Sulfur	ppm	ASTM D5185(m)	2600	<b>2425</b>	2556	2447
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

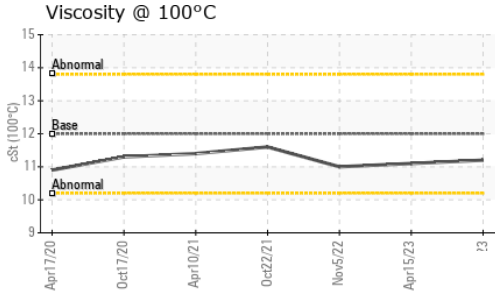
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	4
Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	<b>0.7</b>	0.7	0.7
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.1</b>	10.5	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.2</b>	21.2	23.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>19.0</b>	18.0	18.9



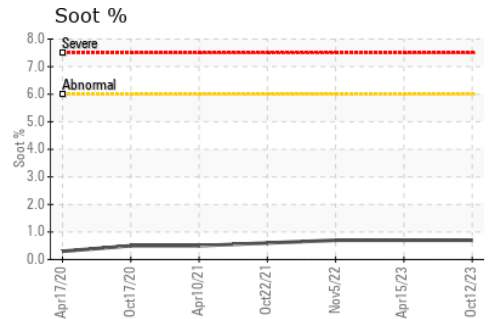
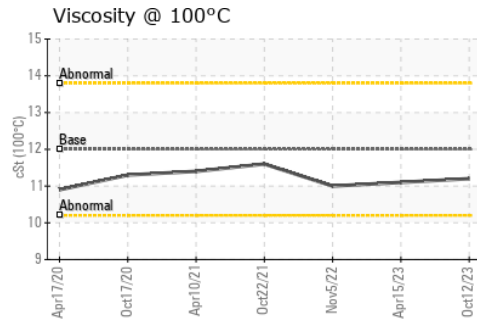
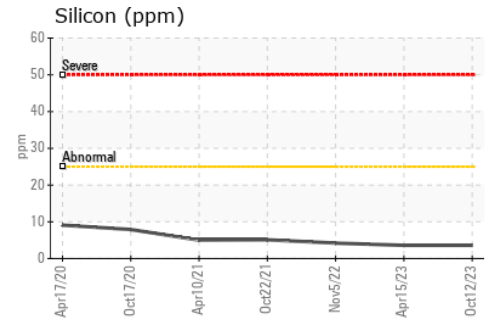
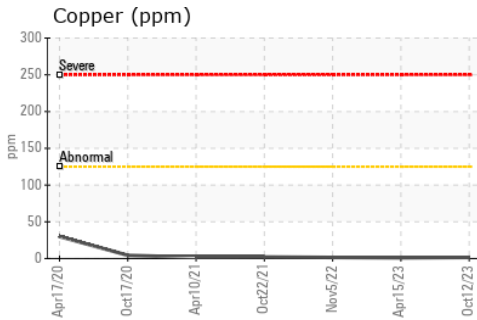
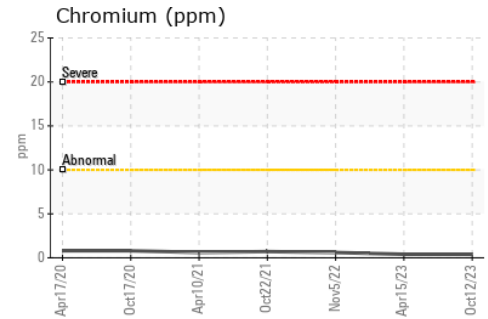
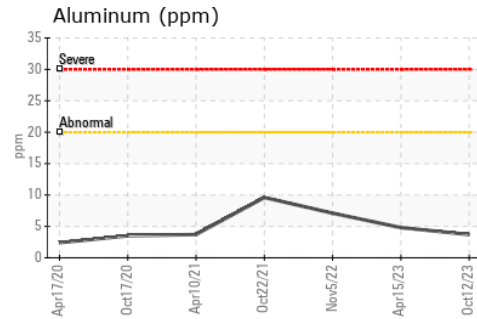
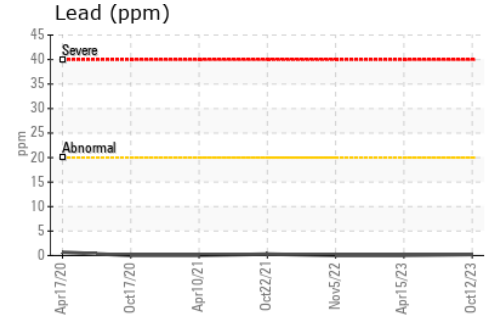
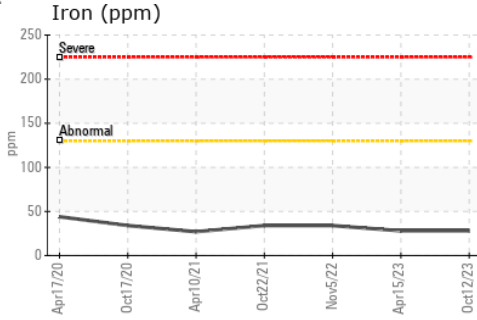
# OIL ANALYSIS REPORT



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	11.2	11.1

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**  
**Sample No.** : WC0848060 **Received** : 17 Oct 2023 1335 SHAWSON DRIVE  
**Lab Number** : 02589467 **Diagnosed** : 17 Oct 2023 MISSISSAUGA, ON  
**Unique Number** : 5658533 **Diagnostician** : Wes Davis 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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