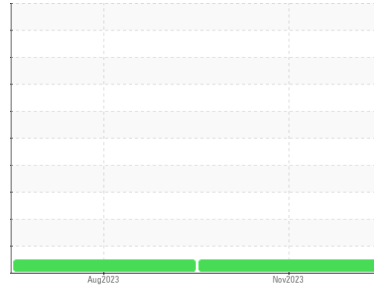




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
56169

Component
Diesel Engine

Fluid
PETRO CANADA DURON SAE 10W30 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		WC0828274	WC0837239	---
Sample Date	Client Info		28 Nov 2023	07 Aug 2023	---
Machine Age	mls	Client Info	77434	38351	---
Oil Age	mls	Client Info	39083	37273	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	0.3	---
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	48	98	---
Chromium	ppm	ASTM D5185(m)	>20	6	15	---
Nickel	ppm	ASTM D5185(m)	>4	<1	1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)	>3	<1	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	30	89	---
Lead	ppm	ASTM D5185(m)	>40	2	7	---
Copper	ppm	ASTM D5185(m)	>330	94	267	---
Tin	ppm	ASTM D5185(m)	>15	<1	5	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	1	3	24	---
Barium	ppm	ASTM D5185(m)	1	<1	<1	---
Molybdenum	ppm	ASTM D5185(m)	1	59	42	---
Manganese	ppm	ASTM D5185(m)	1	<1	5	---
Magnesium	ppm	ASTM D5185(m)	10	928	557	---
Calcium	ppm	ASTM D5185(m)	2942	1156	1683	---
Phosphorus	ppm	ASTM D5185(m)	1102	889	732	---
Zinc	ppm	ASTM D5185(m)	1351	1154	858	---
Sulfur	ppm	ASTM D5185(m)	3903	1660	1503	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS

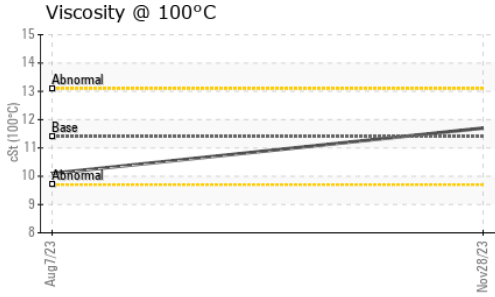
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	6	10	---
Sodium	ppm	ASTM D5185(m)		3	6	---
Potassium	ppm	ASTM D5185(m)	>20	59	183	---

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.5	---
Nitration	Abs/cm	ASTM D7624*	>20	10.0	10.9	---
Sulfation	Abs.1mm	ASTM D7415*	>30	22.3	24.4	---



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Abs./1mm	ASTM D7414*	>25	25.5	---

VISUAL

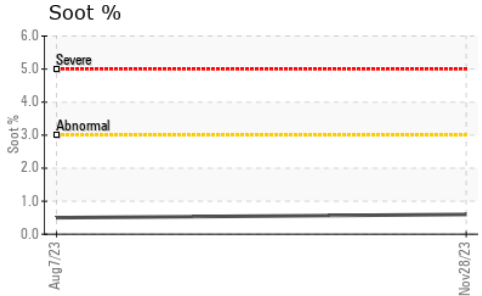
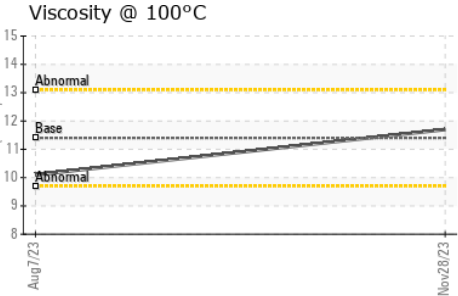
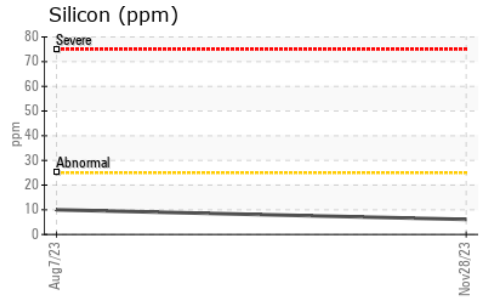
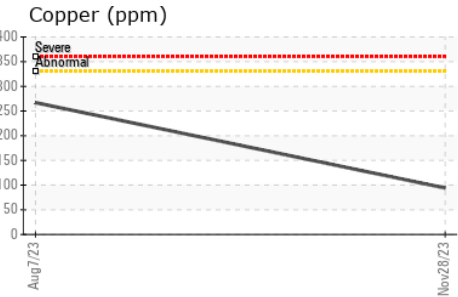
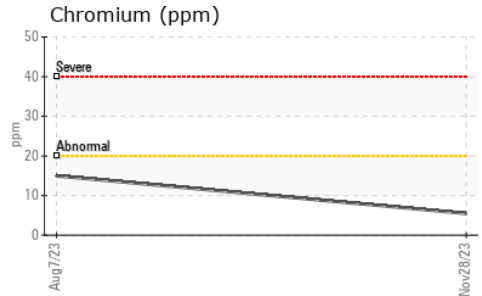
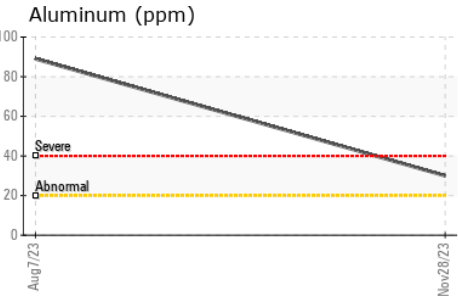
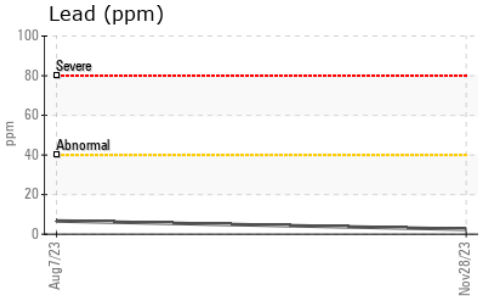
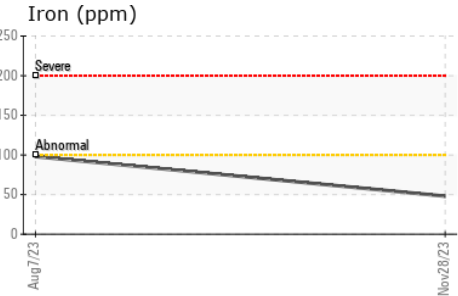
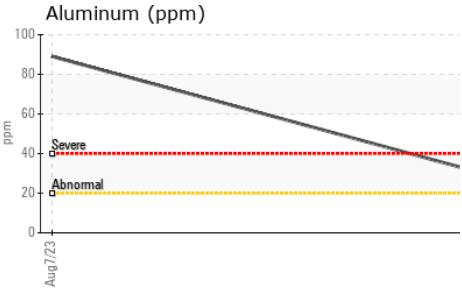
method	limit/base	current	history1	history2
scalar	Visual*	>0.2	NEG	---

Free Water	scalar	Visual*	NEG	---
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FLUID PROPERTIES

method	limit/base	current	history1	history2
cSt	ASTM D7279(m)	11.4	10.1	---

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**
Sample No. : WC0828274 **Received** : 05 Dec 2023 1335 SHAWSON DRIVE
Lab Number : 02600871 **Diagnosed** : 05 Dec 2023 MISSISSAUGA, ON
Unique Number : 5693956 **Diagnostician** : Wes Davis CA L4W 1C4
Test Package : MOB 1 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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T:

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