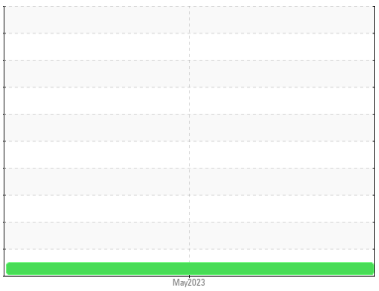
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
51967
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear
Metal levels are typical for a new component breaking in.

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
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0837234**	---	---
Sample Date		Client Info		**14 May 2023**	---	---
Machine Age	mls	Client Info		**33277**	---	---
Oil Age	mls	Client Info		**30780**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**NORMAL**	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	---	---
Glycol		WC Method		**NEG**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**52**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**2**	---	---
Nickel	ppm	ASTM D5185(m)	>4	**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**<1**	---	---
Silver	ppm	ASTM D5185(m)	>3	**<1**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**34**	---	---
Lead	ppm	ASTM D5185(m)	>40	**4**	---	---
Copper	ppm	ASTM D5185(m)	>330	**16**	---	---
Tin	ppm	ASTM D5185(m)	>15	**3**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	**35**	---	---
Barium	ppm	ASTM D5185(m)	0	**4**	---	---
Molybdenum	ppm	ASTM D5185(m)	50	**63**	---	---
Manganese	ppm	ASTM D5185(m)	0	**5**	---	---
Magnesium	ppm	ASTM D5185(m)	950	**470**	---	---
Calcium	ppm	ASTM D5185(m)	1050	**1705**	---	---
Phosphorus	ppm	ASTM D5185(m)	995	**995**	---	---
Zinc	ppm	ASTM D5185(m)	1180	**1168**	---	---
Sulfur	ppm	ASTM D5185(m)	2600	**2281**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**36**	---	---
Sodium	ppm	ASTM D5185(m)		**4**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**96**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.2**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**9.5**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**23.3**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**19.5**	---	---

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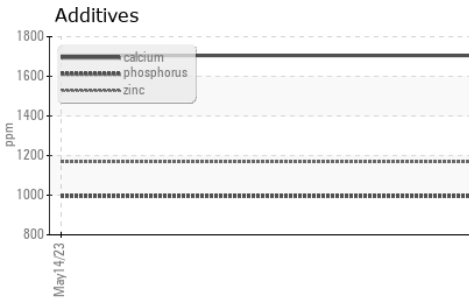
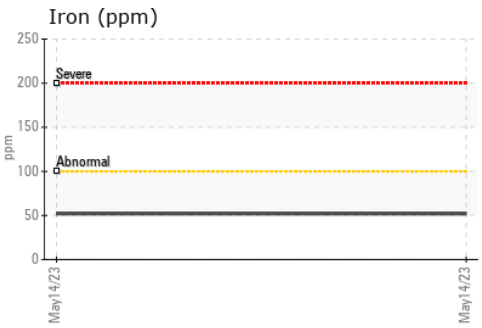
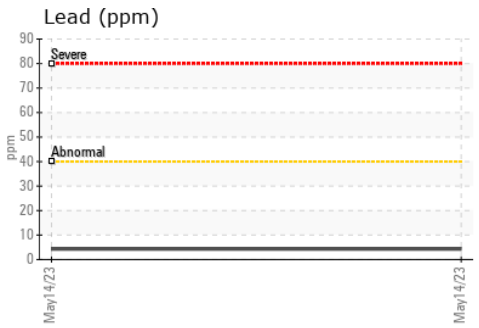


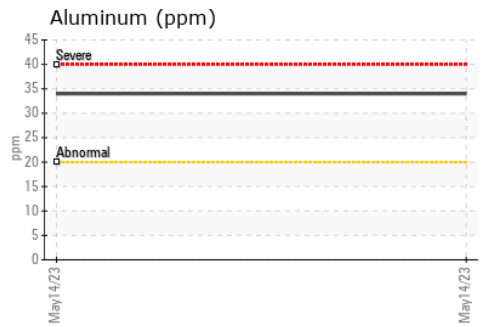
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

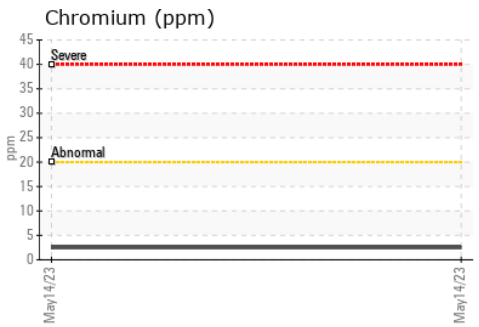
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	**11.6**	---	---

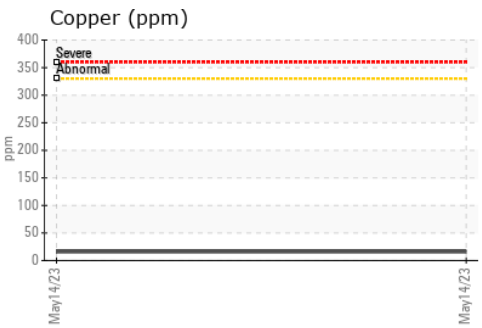
GRAPHS

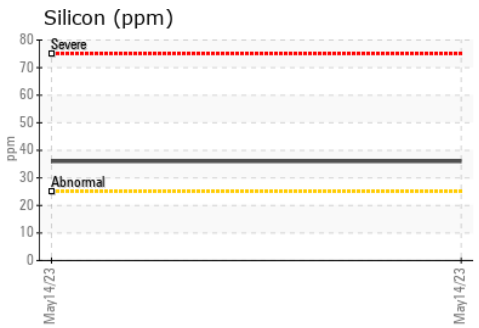


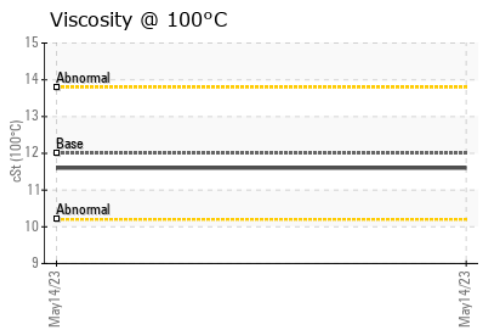


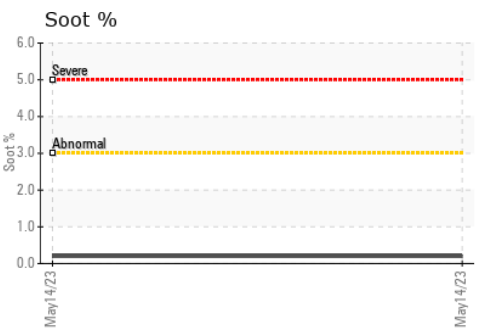












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOULIN TRANSPORT (GARAGE)**
Sample No. : WC0837234 **Received** : 22 Aug 2023 1335 SHAWSON DRIVE
Lab Number : 02577429 **Diagnosed** : 22 Aug 2023 MISSISSAUGA, ON
Unique Number : 5630489 **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. tspence@manitoulintransport.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T:
Validity of results and interpretation are based on the sample and information as supplied. F: (905)564-6361