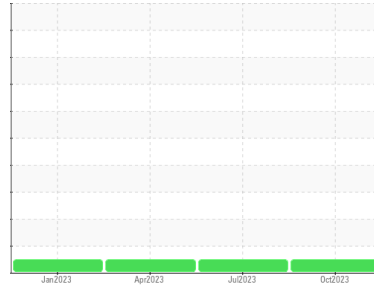




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
56162

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 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			WC0828343	WC0828205	WC0794941
Sample Date	Client Info			03 Oct 2023	01 Jul 2023	19 Apr 2023
Machine Age	mls	Client Info		167854	133856	105114
Oil Age	mls	Client Info		33997	28743	33773
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	25	23	36
Chromium	ppm	ASTM D5185(m)	>20	2	2	3
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	14	9	18
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	3	2	4
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	4	2	2
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	67	63	71
Manganese	ppm	ASTM D5185(m)	0	<1	<1	1
Magnesium	ppm	ASTM D5185(m)	950	1025	1018	1121
Calcium	ppm	ASTM D5185(m)	1050	1141	1109	1314
Phosphorus	ppm	ASTM D5185(m)	995	1052	1098	1197
Zinc	ppm	ASTM D5185(m)	1180	1258	1238	1355
Sulfur	ppm	ASTM D5185(m)	2600	2557	2468	2685
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

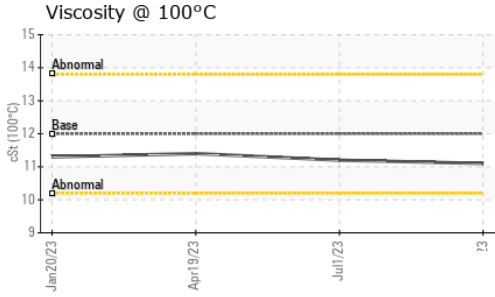
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	10	7	8
Sodium	ppm	ASTM D5185(m)		6	2	3
Potassium	ppm	ASTM D5185(m)	>20	31	19	39

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.6	0.5	0.6
Nitration	Abs/cm	ASTM D7624*	>20	9.4	9.1	9.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	20.6	21.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.9	16.0	16.7



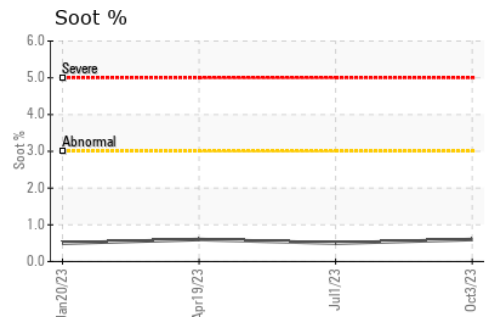
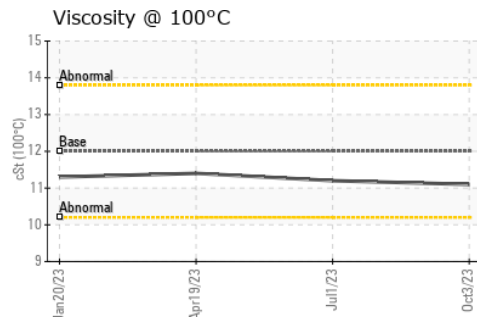
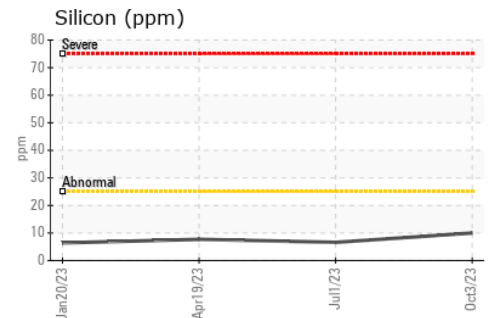
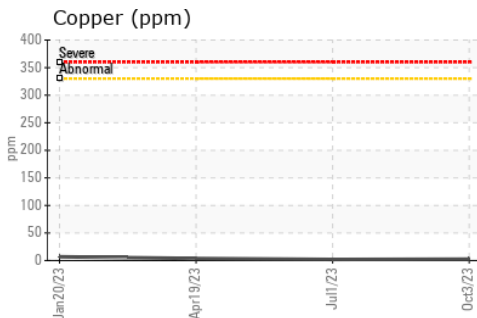
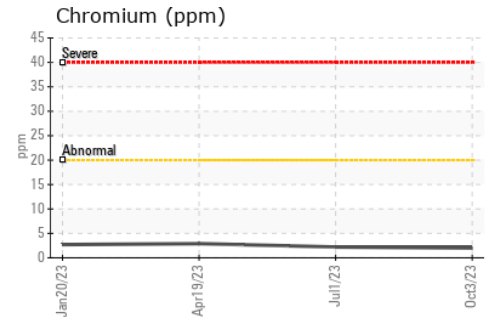
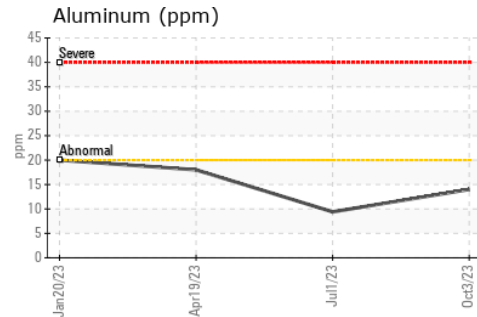
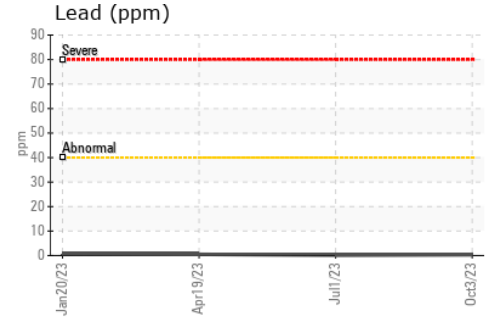
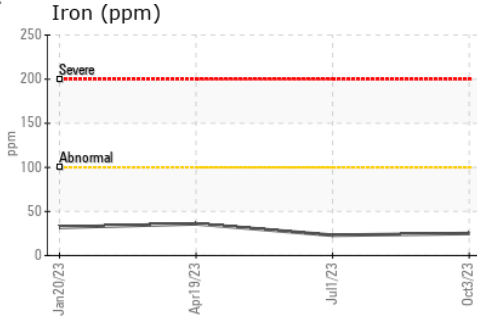
OIL ANALYSIS REPORT



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	11.1	11.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**
Sample No. : WC0828343 **Received** : 11 Oct 2023 **1335 SHAWSON DRIVE**
Lab Number : 02588149 **Diagnosed** : 11 Oct 2023 **MISSISSAUGA, ON**
Unique Number : 5657215 **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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