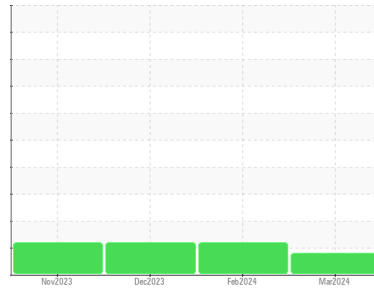




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
55006
 Component
Diesel Engine
 Fluid

PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

▲ Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0915492	WC0892099	WC0854793
Sample Date	Client Info		20 Mar 2024	02 Feb 2024	22 Dec 2023
Machine Age	mls	Client Info	870260	860156	850889
Oil Age	mls	Client Info	10104	9267	9735
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	22	16	26
Chromium	ppm	ASTM D5185(m)	>20	1	<1	1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	1	1	2
Lead	ppm	ASTM D5185(m)	>30	1	2	2
Copper	ppm	ASTM D5185(m)	>30	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
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)	0	<1	1	4
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	60	57
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	984	976	919
Calcium	ppm	ASTM D5185(m)	1070	1048	1103	1070
Phosphorus	ppm	ASTM D5185(m)	1150	975	1030	961
Zinc	ppm	ASTM D5185(m)	1270	1174	1180	1124
Sulfur	ppm	ASTM D5185(m)	2060	2420	2673	2550
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

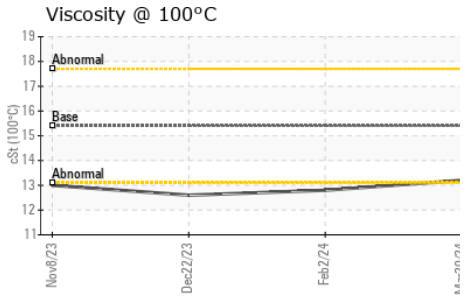
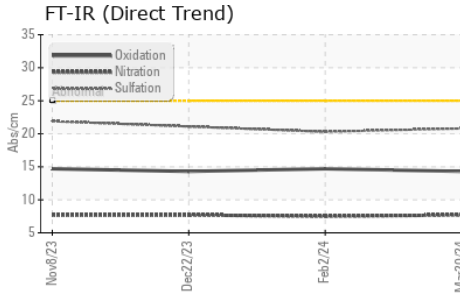
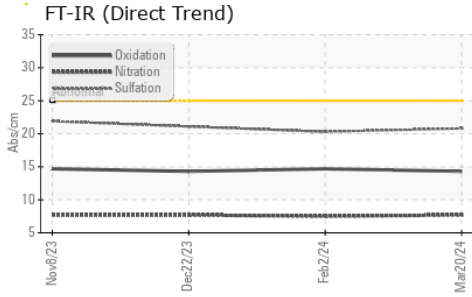
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>30	2	3	4
Sodium	ppm	ASTM D5185(m)		6	1	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	2
Fuel	%	ASTM D7593*	>3.0	▲ 3.4	▲ 3.4	▲ 3.5

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	1.3	0.7	1.4
Nitration	Abs/cm	ASTM D7624*	>20	7.7	7.5	7.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	20.3	21.1



OIL ANALYSIS REPORT

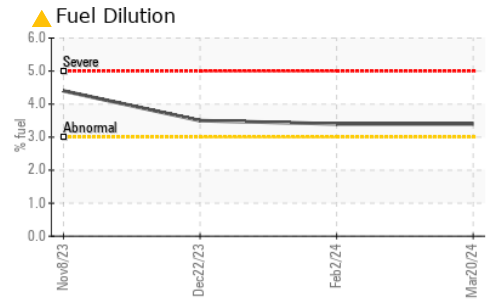
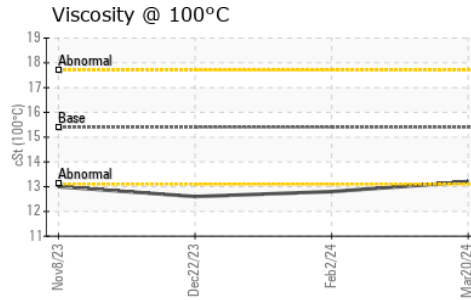
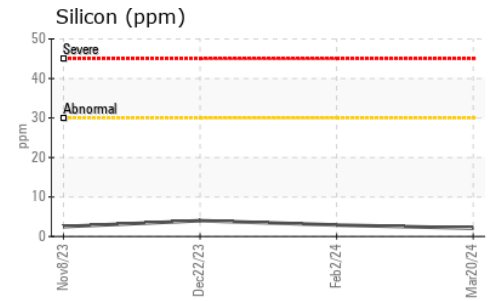
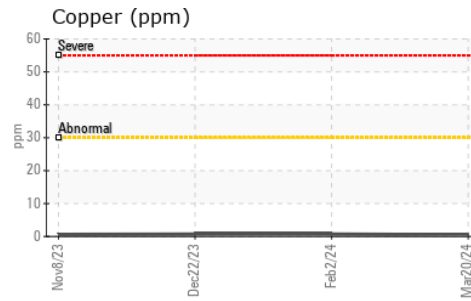
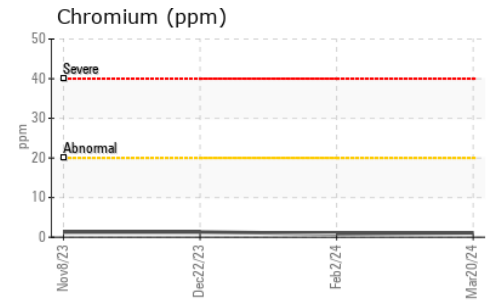
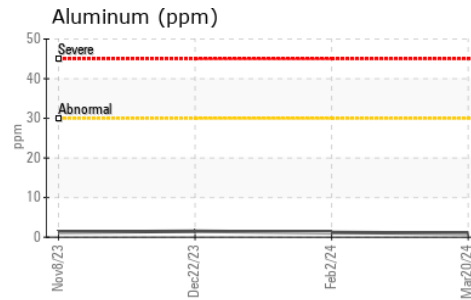
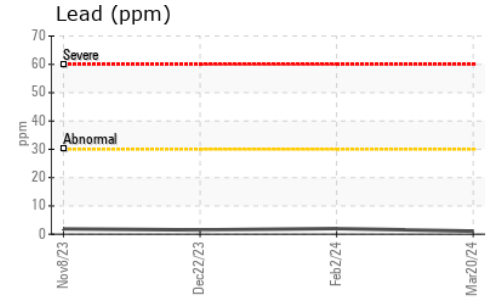
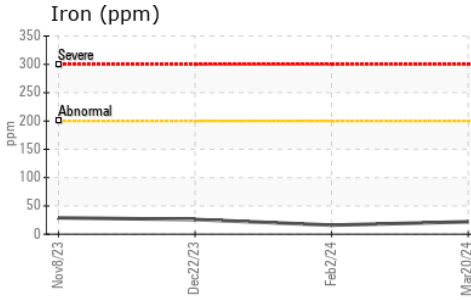


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.3	14.7	14.3

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.2	▲ 12.8	▲ 12.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0915492 **Received** : 05 Apr 2024
Lab Number : **02626910** **Tested** : 08 Apr 2024
Unique Number : 5760042 **Diagnosed** : 08 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel)

MANITOU LIN TRANSPORT
 75 MUMFORD ROAD
 LIVELY, ON
 CA P3Y 1L1
 Contact: Todd Smith
 tosmith@manitoulintransport.com
 T: (705)562-3302
 F: x:

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.