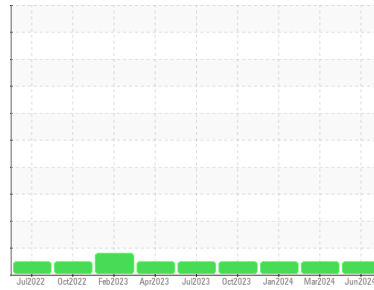




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

INTERNATIONAL 52867

Component

Diesel Engine

Fluid

PETRO CANADA DURON SAE 10W30 (--- GAL)

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		WC0948301	WC0899672	WC0886689
Sample Date	Client Info		06 Jun 2024	30 Mar 2024	06 Jan 2024
Machine Age	mls	Client Info	318425	290351	261433
Oil Age	mls	Client Info	28097	28898	28586
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
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)	>100	14	16	18
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	3	4
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	2	2	3
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)	1	<1	1	<1
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	1	60	62	60
Manganese	ppm	ASTM D5185(m)	1	<1	0	0
Magnesium	ppm	ASTM D5185(m)	10	993	1010	989
Calcium	ppm	ASTM D5185(m)	2942	1071	1066	1084
Phosphorus	ppm	ASTM D5185(m)	1102	1007	1033	1034
Zinc	ppm	ASTM D5185(m)	1351	1211	1222	1202
Sulfur	ppm	ASTM D5185(m)	3903	2492	2515	2656
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

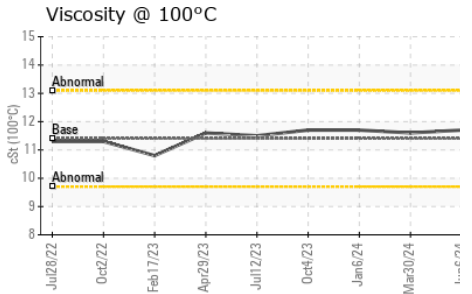
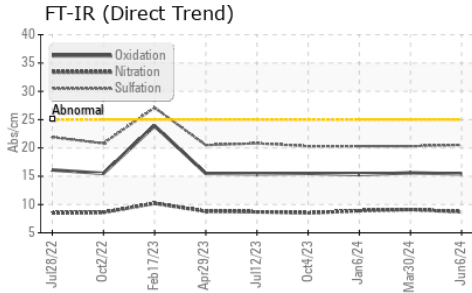
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	4	6
Sodium	ppm	ASTM D5185(m)		2	2	2
Potassium	ppm	ASTM D5185(m)	>20	2	3	4

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.8	0.8	0.8
Nitration	Abs/cm	ASTM D7624*	>20	8.7	9.1	8.9
Sulfation	Abs./1mm	ASTM D7415*	>30	20.5	20.3	20.3



OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2
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Oxidation	Abs./1mm	ASTM D7414*	>25	15.4	15.6	15.3
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VISUAL	method	limit/base	current	history1	history2
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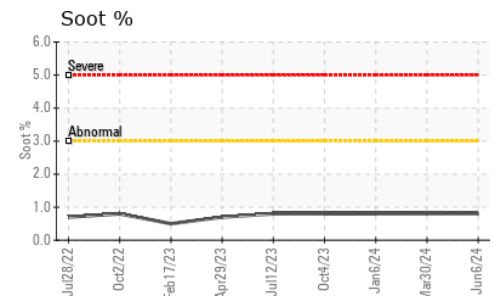
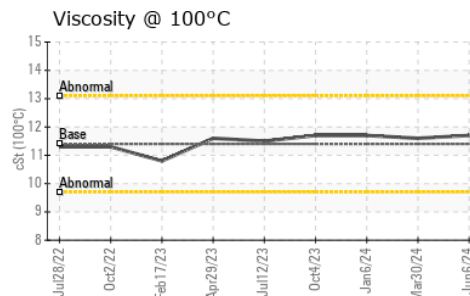
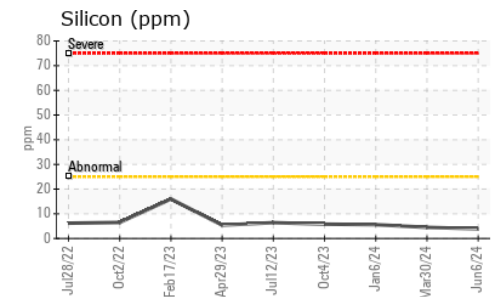
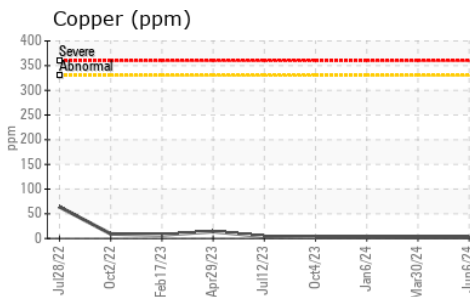
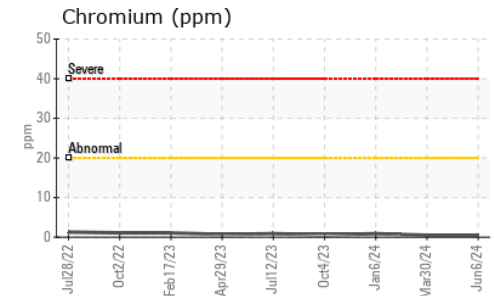
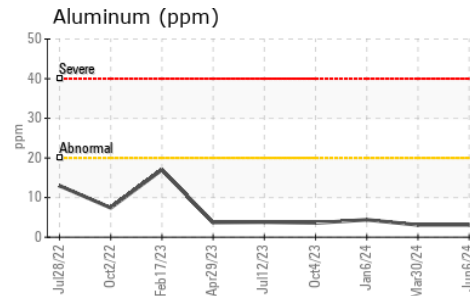
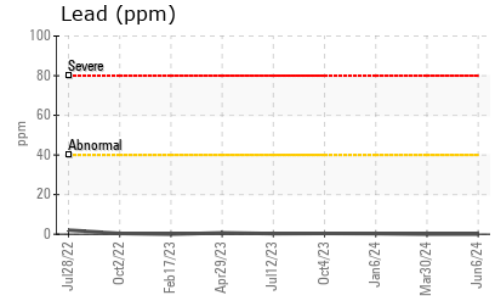
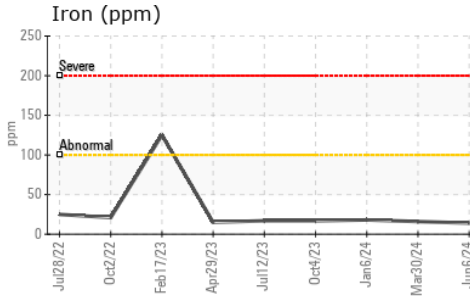
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
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Free Water	scalar	Visual*		NEG	NEG	NEG
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FLUID PROPERTIES	method	limit/base	current	history1	history2
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Visc @ 100°C	cSt	ASTM D7279(m)	11.4	11.7	11.6	11.7
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0948301
Lab Number : 02641036
Unique Number : 5798575
Test Package : MOB 1
Received : 11 Jun 2024
Tested : 11 Jun 2024
Diagnosed : 11 Jun 2024 - Wes Davis

MANITOU LIN TRANSPORT (GARAGE)
 1335 SHAWSON DRIVE
 MISSISSAUGA, ON
 CA L4W 1C4
 Contact: Travis Spence
 tspence@manitoulintransport.com

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.

F: (905)564-6361