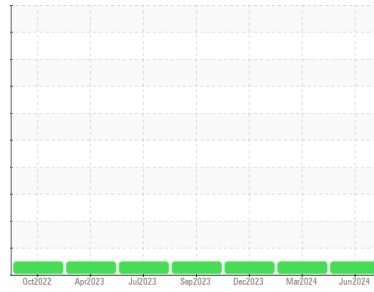




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

52908

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 10W30 (--- GAL)

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

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		WC0948251	WC0899678	WC0864555
Sample Date	Client Info		15 Jun 2024	16 Mar 2024	15 Dec 2023
Machine Age	mls	Client Info	231537	197985	163516
Oil Age	mls	Client Info	33552	34469	31111
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	23	31	14
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	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	4	4	5
Lead	ppm	ASTM D5185(m)	>40	3	2	2
Copper	ppm	ASTM D5185(m)	>330	2	2	1
Tin	ppm	ASTM D5185(m)	>15	<1	0	<1
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)	250	1	0	1
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	61	63	59
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)	450	992	1033	978
Calcium	ppm	ASTM D5185(m)	3000	1108	1099	1082
Phosphorus	ppm	ASTM D5185(m)	1150	1030	1033	1028
Zinc	ppm	ASTM D5185(m)	1350	1265	1274	1207
Sulfur	ppm	ASTM D5185(m)	4250	2498	2460	2659
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

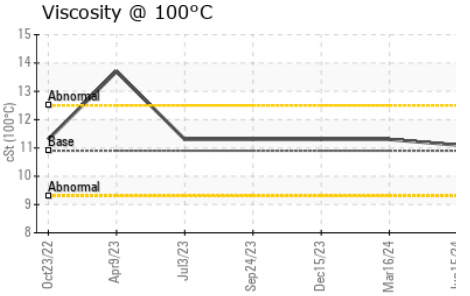
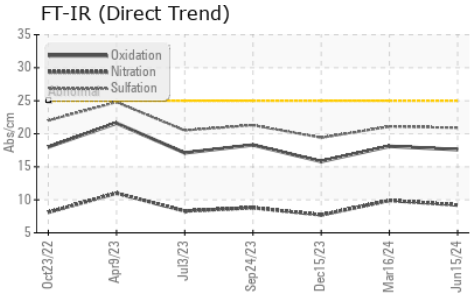
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	4	4
Sodium	ppm	ASTM D5185(m)		3	2	1
Potassium	ppm	ASTM D5185(m)	>20	6	6	4

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.4	0.5	0.2
Nitration	Abs/cm	ASTM D7624*	>20	9.2	9.9	7.7
Sulfation	Abs./1mm	ASTM D7415*	>30	20.9	21.1	19.4



OIL ANALYSIS REPORT

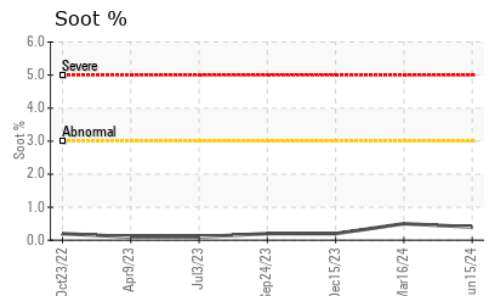
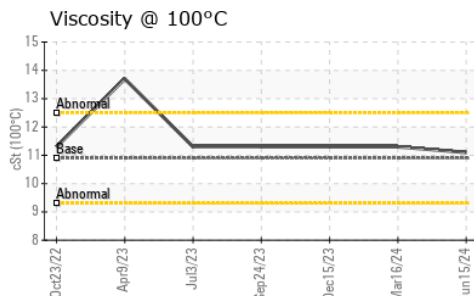
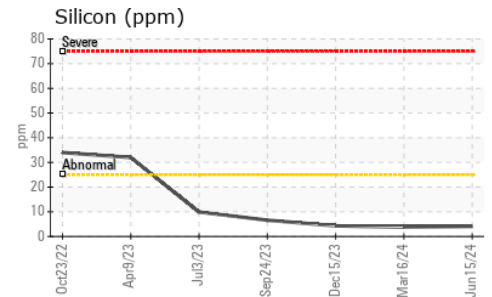
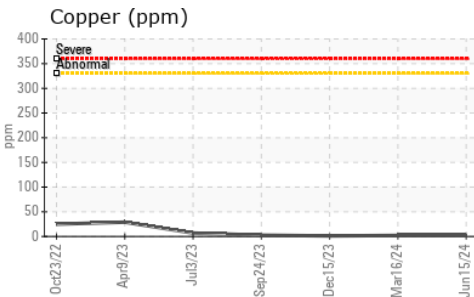
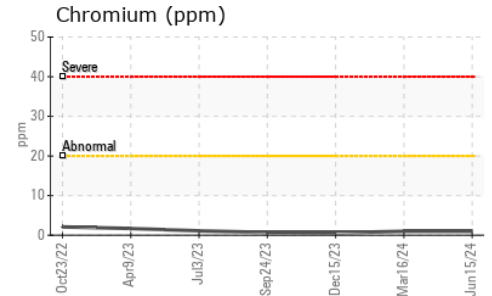
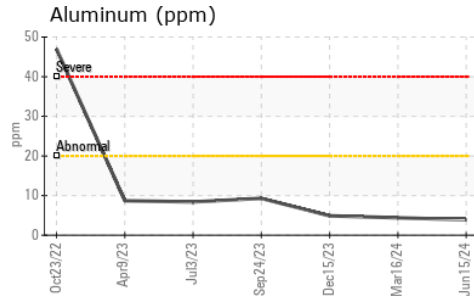
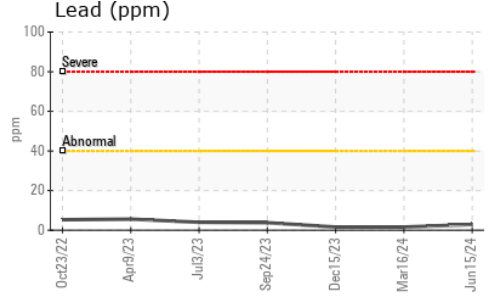
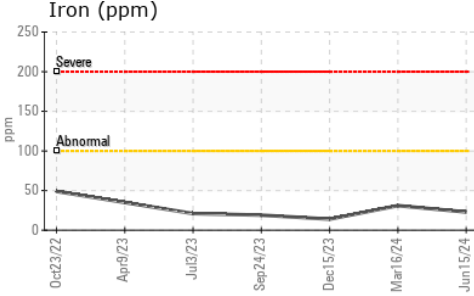


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	17.6	18.1	15.8

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)	10.9	11.1	11.3	11.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**
Sample No. : WC0948251 **Received** : 18 Jun 2024 1335 SHAWSON DRIVE
Lab Number : **02642531** **Tested** : 18 Jun 2024 MISSISSAUGA, ON
Unique Number : 5800070 **Diagnosed** : 18 Jun 2024 - Wes Davis CA L4W 1C4
Test Package : MOB 1 **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.

T:
F: (905)564-6361