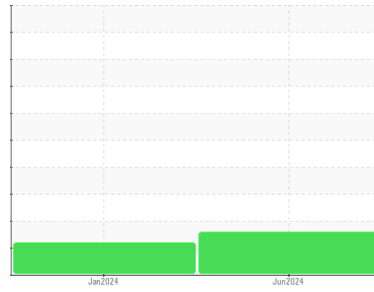




# OIL ANALYSIS REPORT

## Sample Rating Trend



FUEL



Machine Id  
**2222**  
 Component  
**Diesel Engine**  
 Fluid  
**SAE 5W20 (--- LTR)**

### DIAGNOSIS

#### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

#### Fluid Condition

Visc @ 100°C is abnormally high. Calcium ppm levels are abnormally low.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0932312</b>	WC0886652	---
Sample Date	Client Info		<b>10 Jun 2024</b>	20 Jan 2024	---
Machine Age	mls	Client Info	<b>105870</b>	59374	---
Oil Age	mls	Client Info	<b>10946</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

### CONTAMINATION

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

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	<b>17</b>	29	---
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	4	---
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	---
Copper	ppm	ASTM D5185(m)	>330	<b>6</b>	9	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>7</b>	1	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)		<b>49</b>	46	---
Manganese	ppm	ASTM D5185(m)		<b>2</b>	3	---
Magnesium	ppm	ASTM D5185(m)		<b>381</b>	365	---
Calcium	ppm	ASTM D5185(m)		<b>▲ 856</b>	852	---
Phosphorus	ppm	ASTM D5185(m)		<b>513</b>	506	---
Zinc	ppm	ASTM D5185(m)		<b>597</b>	578	---
Sulfur	ppm	ASTM D5185(m)		<b>1401</b>	1386	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

### CONTAMINANTS

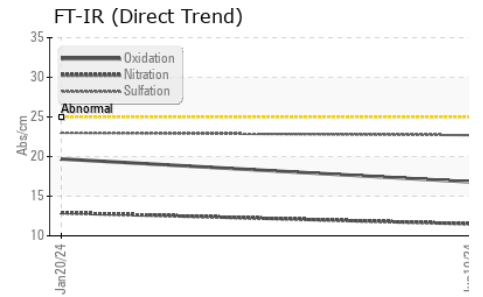
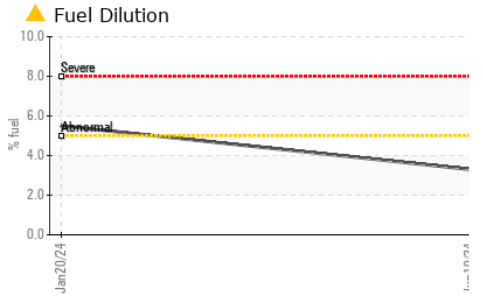
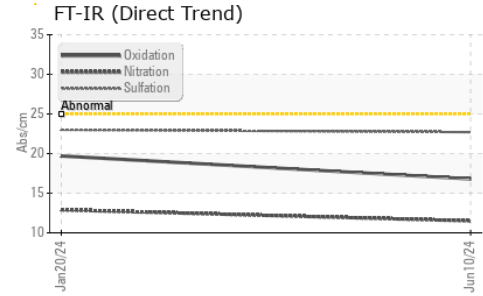
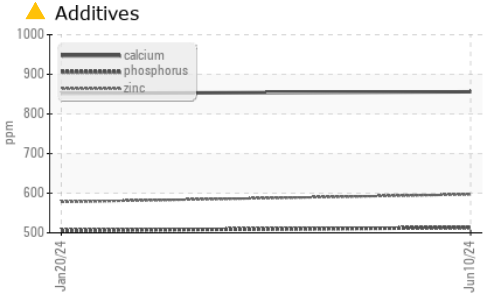
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>12</b>	16	---
Sodium	ppm	ASTM D5185(m)		<b>3</b>	4	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	---
Fuel	%	ASTM D7593*	>5	<b>▲ 3.3</b>	▲ 5.5	---

### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.5</b>	12.9	---
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>22.7</b>	23.0	---



# OIL ANALYSIS REPORT

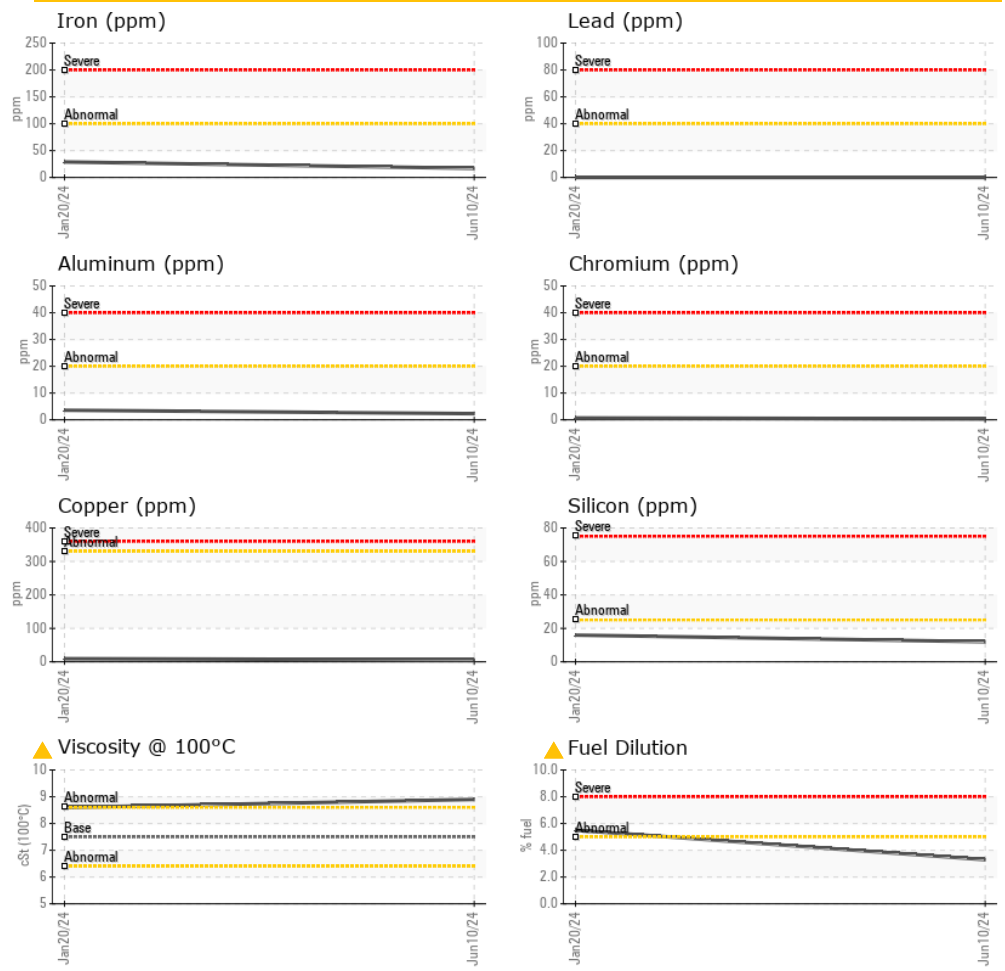


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>16.8</b>	19.7	---

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	7.5	<b>▲ 8.9</b>	▲ 8.6	---

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**  
**Sample No.** : WC0932312 **Received** : 11 Jun 2024 **1335 SHAWSON DRIVE**  
**Lab Number** : **02641046** **Tested** : 12 Jun 2024 **MISSISSAUGA, ON**  
**Unique Number** : 5798585 **Diagnosed** : 12 Jun 2024 - Wes Davis **CA L4W 1C4**  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel, Visual ) **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**