



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**114200-1217**  
Component  
**Diesel Engine**  
Fluid  
**SAE 5W30 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0290951</b>	LH0242282	LH0203023
Sample Date		Client Info		<b>14 May 2024</b>	13 Oct 2022	28 Jun 2022
Machine Age	hrs	Client Info		<b>5300</b>	3197	2854
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>4</b>	4	3
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	<b>1</b>	1	1
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>125	<b>1</b>	2	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

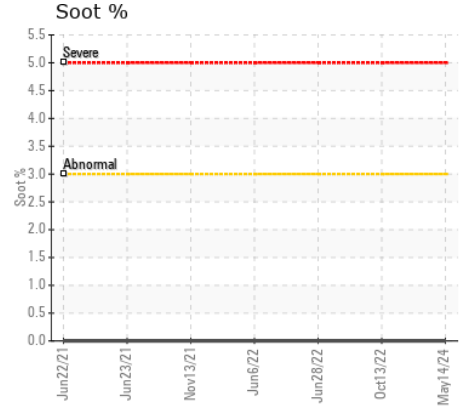
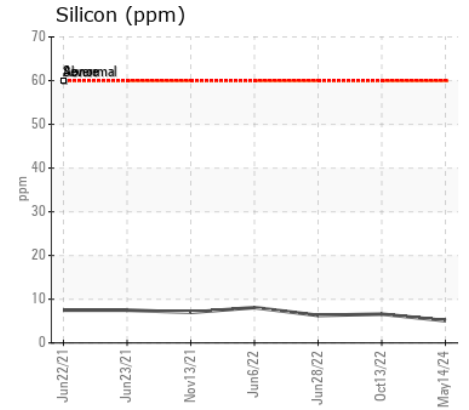
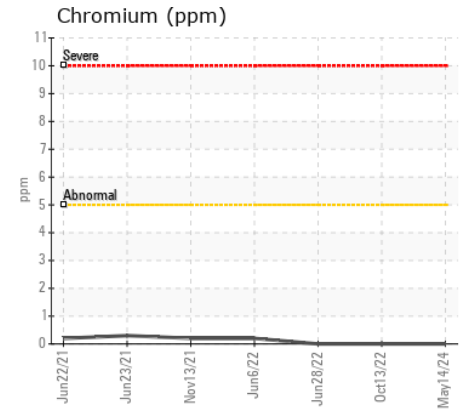
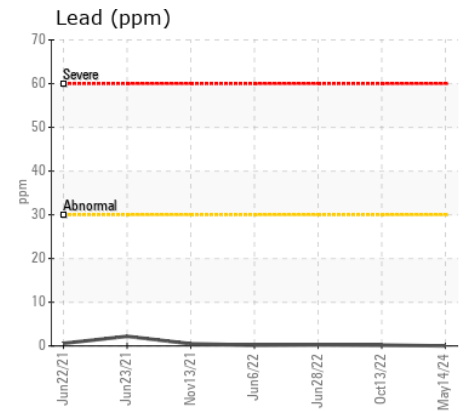
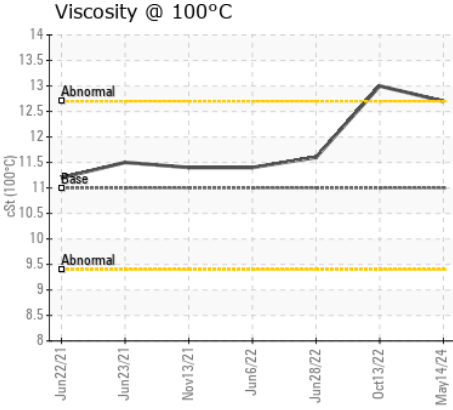
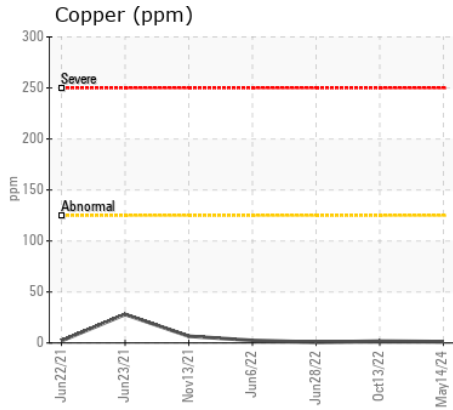
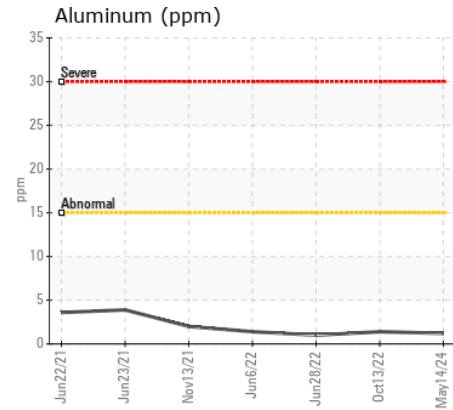
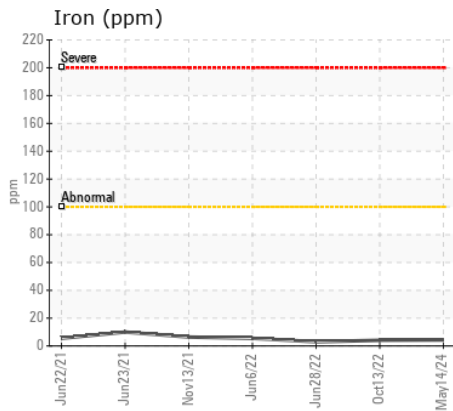
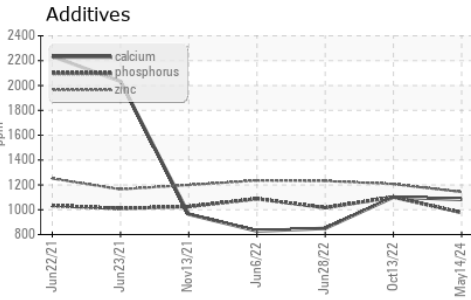
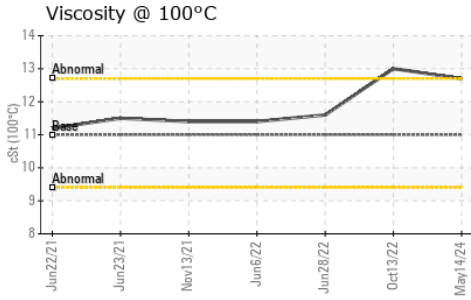
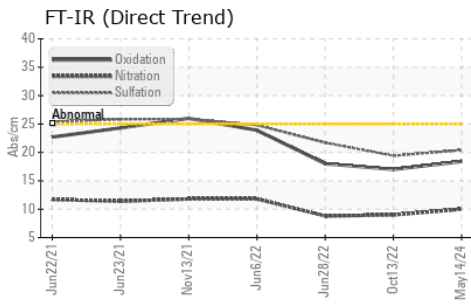
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>5</b>	7	6
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	1.3
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.0</b>	9.0	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.4</b>	19.4	21.7
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	4
Boron	ppm	ASTM D5185(m)		<b>2</b>	4	34
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>58</b>	58	56
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>848</b>	990	1120
Calcium	ppm	ASTM D5185(m)		<b>1083</b>	1102	850
Phosphorus	ppm	ASTM D5185(m)		<b>977</b>	1102	1016
Zinc	ppm	ASTM D5185(m)		<b>1143</b>	1207	1231
Sulfur	ppm	ASTM D5185(m)		<b>2451</b>	2717	2923
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.4</b>	17.0	18.0
Visc @ 100°C	cSt	ASTM D7279(m)	11.0	<b>12.7</b>	13.0	▲ 11.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0290951 **Received** : 16 May 2024  
**Lab Number** : 02635932 **Tested** : 16 May 2024  
**Unique Number** : 5785094 **Diagnosed** : 16 May 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**American Iron and Metal**  
 4250 NORTH SERVICE ROAD  
 WINDSOR, ON  
 CA N8W 5X2  
 Contact: Service Manager

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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