



# LIEBHERR

## OIL ANALYSIS REPORT



Area  
**RMR-Newport**  
Machine Id  
**1203-88007 LIEBHERR LH50M 1203-88007**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON UHP 5W30 (--- GAL)**

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0272315</b>	DJJ0018095	DJJ0016428
Sample Date		Client Info		<b>08 Jul 2024</b>	14 Jun 2024	05 Dec 2022
Machine Age	hrs	Client Info		<b>12072</b>	12052	10444
Oil Age	hrs	Client Info		<b>20</b>	0	0
Filter Age	hrs	Client Info		<b>20</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	N/A	Changed
Sample Status				<b>ATTENTION</b>	SEVERE	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>16</b>	40	46
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>15	<b>14</b>	▲ 46	21
Lead	ppm	ASTM D5185m	>30	<b>2</b>	4	4
Copper	ppm	ASTM D5185m	>125	<b>2</b>	4	9
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

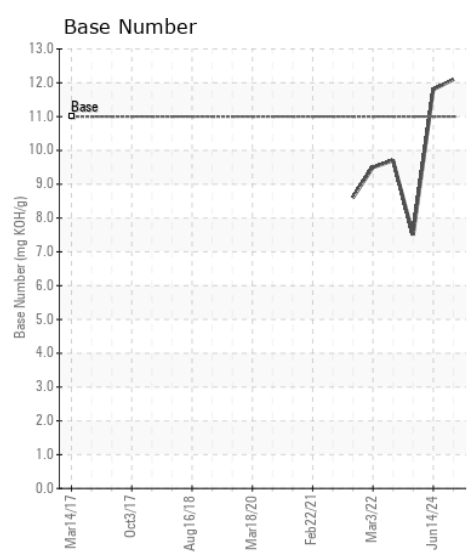
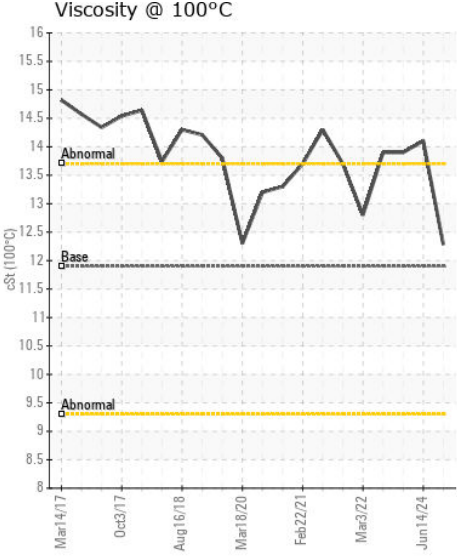
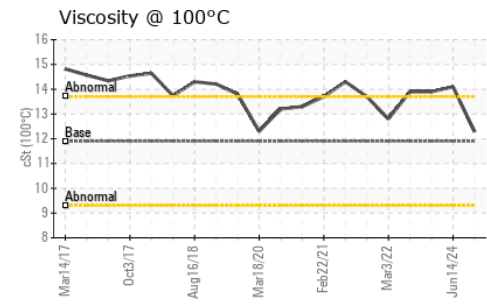
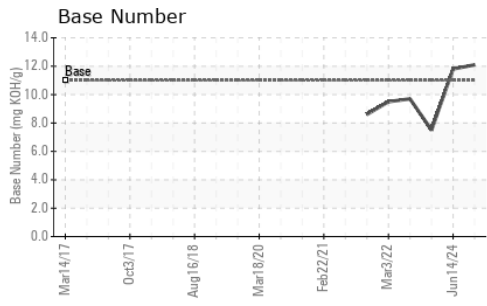
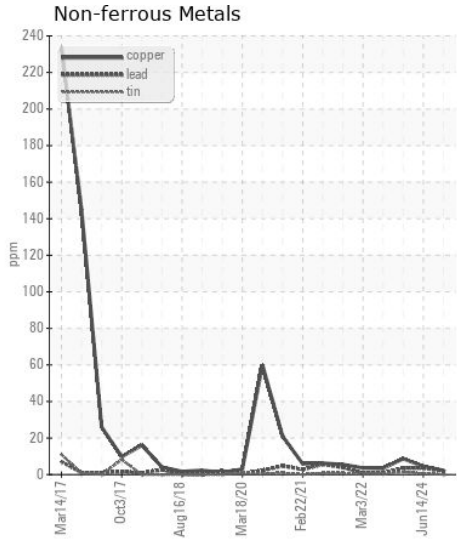
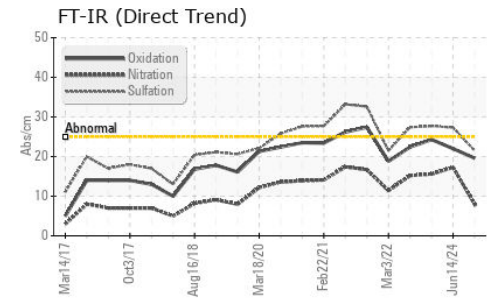
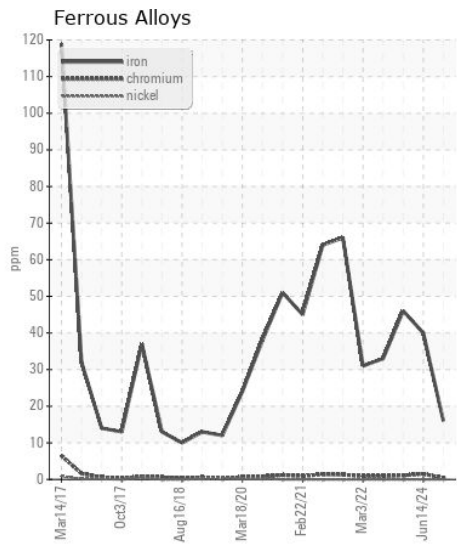
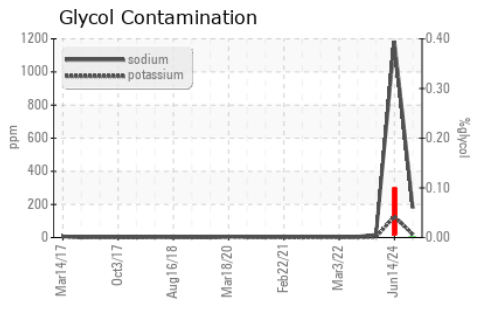
Fuel content negligible. Sodium and/or potassium levels are high. Test for glycol is negative. Possible carry-over from previous contamination.

Silicon	ppm	ASTM D5185m	>60	<b>9</b>	15	8
Potassium	ppm	ASTM D5185m	>20	<b>19</b>	▲ 127	2
Fuel	%	ASTM D3524	>5	<b>0.4</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>0.0</b>	▲ 0.10	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	▲ 3	▲ 3.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	17.3	15.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	27.3	27.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		● <b>179</b>	▲ 1184	17
Boron	ppm	ASTM D5185m	0	<b>126</b>	16	36
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	64	<b>46</b>	46	50
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	1160	<b>936</b>	649	873
Calcium	ppm	ASTM D5185m	820	<b>1421</b>	1353	1381
Phosphorus	ppm	ASTM D5185m	1160	<b>840</b>	638	689
Zinc	ppm	ASTM D5185m	1260	<b>946</b>	836	961
Sulfur	ppm	ASTM D5185m	3000	<b>3081</b>	3136	2765
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.6</b>	22.0	24.3
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	<b>12.1</b>	11.8	7.5
Visc @ 100°C	cSt	ASTM D445	11.9	<b>12.28</b>	▲ 14.1	13.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0272315 **Received** : 09 Jul 2024  
**Lab Number** : 06231856 **Tested** : 09 Jul 2024  
**Unique Number** : 11115349 **Diagnosed** : 09 Jul 2024 - Doug Bogart  
**Test Package** : CONST ( Additional Tests: PERCENTFUEL, TBN )

**RIVER METALS RECYCLING - NEWPORT**  
 P.O. BOX 72-220  
 NEWPORT, KY  
 US 41072  
 Contact: RYAN BOWDEN

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)