

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A904 034972-710 - Diesel Engine

Sample No: LH0284051

Oil Type: PETRO CANADA 10W40



Rypac Aluminum Recycling
 11849 Tannery Road
 Surrey, BC
 CA V3V 3W8
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SAMPLE INFORMATION

Sample Number	LH0284051	LH0226772	LH0173154	LH0140268
Sample Date	09 Feb 2024	19 Mar 2022	03 Jul 2020	12 Apr 2019
Machine Hours	25248	23717	22216	21513
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	ABNORMAL	ABNORMAL



OIL CONDITION

Visc @ 100°C	cSt	12.2	9.6	8.2	8.7
Oxidation (PA)	%	63	43	35	53



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	1.3	0.8	0.7	1.8
Nitration (PA)	%	83	63	53	65
Sulfation (PA)	%	62	53	59	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	0.7	0.5	0.6
Silicon	ppm	4	3	3	5
Sodium	ppm	2	2	2	4
Potassium	ppm	1	<1	<1	1



WEAR METALS

Iron	ppm	26	31	46	94
Copper	ppm	1	2	3	6
Lead	ppm	3	1	1	7
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	4	2	2	3
Chromium	ppm	1	4	5	5
Molybdenum	ppm	77	46	17	<1
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	0	<1	<1	1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1819	1139	374	997
Magnesium	ppm	139	35	265	9
Zinc	ppm	1093	804	641	699
Phosphorus	ppm	926	713	511	538
Barium	ppm	0	0	0	0
Boron	ppm	25	18	<1	<1

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: RYPSUR
 Unique No: 5724713
 Signed: Wes Davis
 Report Date: 14 Feb 2024



GRAPHS

