

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R924 38847 - Diesel Engine

Sample No: LH0288053

Oil Type: PETRO CANADA 10W40



Sample Information

Sample Number	LH0288053	LH0226715	LH0191824	LH0132900
Sample Date	19 Apr 2024	25 May 2022	22 Mar 2021	28 Jul 2020
Machine Hours	11005	8011	5934	5307
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ECOWASTE INDUSTRIES
 4 SPRUCE ST
 NEW WESTMINSTER, BC
 CA V3L 5G6
 Contact: Service Manager



Oil Condition

Visc @ 100°C	cSt	13.1	13.2	13.2	11.9
Oxidation (PA)	%	60	63	67	78

T:
F:



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.3
Nitration (PA)	%	63	67	78	87
Sulfation (PA)	%	52	59	56	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	8	8	8
Sodium	ppm	4	2	6	2
Potassium	ppm	3	<1	1	2

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.



Wear Metals

Iron	ppm	8	8	15	22
Copper	ppm	8	2	4	6
Lead	ppm	<1	2	3	1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	4	3	5	6
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	59	61	55	53
Nickel	ppm	0	0	<1	<1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	1083	1125	1067	961
Magnesium	ppm	987	1031	976	1048
Zinc	ppm	1201	1273	1248	1259
Phosphorus	ppm	1012	1101	993	1046
Barium	ppm	<1	0	0	0
Boron	ppm	<1	1	7	29

Depot: ECONEW
 Unique No: 5773807
 Signed: Wes Davis
 Report Date: 02 May 2024



Graphs

