

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH22M 110435-1250 - Diesel Engine

Sample No: LH0288119

Oil Type: PETRO CANADA 10W40



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

T:  
 F:



#### Sample Information

Sample Number	LH0288119	LH0280954	LH0284000	LH0260468
Sample Date	30 May 2024	20 Mar 2024	31 Jan 2024	14 Aug 2023
Machine Hours	13142	12555	12137	11129
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



#### Oil Condition

Visc @ 40°C	cSt	---	---	---	101
Visc @ 100°C	cSt	13.2	13.1	11.8	14.4
Viscosity Index (VI)	Scale	---	---	---	146
Oxidation (PA)	%	64	90	173	84

#### 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.



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	62	64	86	87
Sulfation (PA)	%	55	66	100	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	15	31	44	10
Sodium	ppm	<1	2	3	3
Potassium	ppm	0	0	2	<1



#### Wear Metals

Iron	ppm	15	15	20	20
Copper	ppm	2	7	20	1
Lead	ppm	0	0	1	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	<1	2	4	2
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	61	53	38	66
Nickel	ppm	0	<1	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	4	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	1137	1292	1834	1156
Magnesium	ppm	1016	911	749	1104
Zinc	ppm	1250	1155	945	1349
Phosphorus	ppm	1037	943	809	1110
Barium	ppm	0	<1	3	0
Boron	ppm	2	17	83	1

Depot: ECONEW  
 Unique No: 5798874  
 Signed: Wes Davis  
 Report Date: 12 Jun 2024



### Graphs

