

LIEBHERR

CONSTRUCTION EQUIPMENT



[[593756]] LIEBHERR HS8100 184996 - Diesel Engine

Sample No: LH0284978

Oil Type: PETRO CANADA 10W30



SAMPLE INFORMATION

Sample Number	LH0284978	LH0256990	LH0251623	LH0239652
Sample Date	26 Jan 2024	07 Sep 2023	13 Jan 2023	29 Jul 2022
Machine Hours	12043	11071	9355	8113
Oil Hours	0	0	0	0
Oil Changed	N/A	N/A	Changed	Changed
Sample Status	NORMAL	NORMAL	ATTENTION	ABNORMAL

HIGGS & HIGGS

RR # 4

ST THOMAS, ON

CA N5P 3S8

Contact: Bernie Higgs



OIL CONDITION

Visc @ 100°C	cSt	12.4	12.9	13.5	13.7
Oxidation (PA)	%	108	106	126	122

T: (519)631-4095

F: (519)631-2745



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	100	98	127	134
Sulfation (PA)	%	66	68	78	80
Glycol	%	NEG	0.0	0.0	0.012
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	6	15	16
Sodium	ppm	44	151	973	907
Potassium	ppm	2	5	63	71

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	6	7	9	10
Copper	ppm	1	2	4	7
Lead	ppm	0	<1	3	3
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	1	1	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	64	63	78	68
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	<1	<1	1
Silver	ppm	0	<1	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	849	879	995	907
Magnesium	ppm	1144	1199	990	1185
Zinc	ppm	1206	1294	1124	1291
Phosphorus	ppm	1001	1108	895	972
Barium	ppm	0	0	0	0
Boron	ppm	27	20	22	11

Depot: HIGSTT

Unique No: 5736955

Signed: Kevin Marson

Report Date: 06 Mar 2024



GRAPHS

