

LIEBHERR

CONSTRUCTION EQUIPMENT



116431-1217 - Diesel Engine

Sample No: LH0277753

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0277753	LH0270562	LH0222875	LH0153868
Sample Date	08 Jan 2024	25 Sep 2023	09 May 2023	14 Dec 2022
Machine Hours	8104	7608	7133	6588
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

American Iron and Metal

2555 Sheffield Road
Ottawa, ON
CA K1B 3V6
Contact: Dan Dupelle
ddupelle@aim-rg.com
T: (613)228-9380
F: (613)745-0692



OIL CONDITION

Visc @ 100°C	cSt	13.0	12.8	12.5	12.7
Oxidation (PA)	%	67	65	69	71



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	73	74	84	80
Sulfation (PA)	%	53	53	54	56
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	7	6	6
Sodium	ppm	1	2	2	2
Potassium	ppm	<1	0	0	<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.



WEAR METALS

Iron	ppm	4	5	5	4
Copper	ppm	<1	3	3	4
Lead	ppm	<1	1	<1	<1
Tin	ppm	0	0	<1	<1
Aluminum	ppm	1	2	1	2
Chromium	ppm	0	0	0	0
Molybdenum	ppm	57	59	59	56
Nickel	ppm	0	0	<1	0
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1132	1127	1133	1119
Magnesium	ppm	925	976	950	939
Zinc	ppm	1162	1244	1241	1161
Phosphorus	ppm	1000	1021	1111	1072
Barium	ppm	0	<1	0	0
Boron	ppm	6	1	1	5

Depot: BAKOTT
Unique No: 5711614
Signed: Kevin Marson
Report Date: 23 Jan 2024



GRAPHS

