

LIEBHERR

CONSTRUCTION EQUIPMENT



043059-1007 - Diesel Engine

Sample No: LH0269625

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0269625	LH0195149	LH0081463	LH0065321
Sample Date	13 Sep 2023	23 Sep 2021	20 Nov 2014	10 Oct 2013
Machine Hours	17779	0	9170	8506
Oil Hours	0	0	0	0
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	NORMAL	SEVERE	SEVERE	NORMAL

American Iron and Metal
 60 SIMMONDS DRIVE
 DARTMOUTH, NS
 CA B3B 1P6
 Contact: Pierre Paille



OIL CONDITION

Visc @ 100°C	cSt	15.0	---	16.4	15.7
Oxidation (PA)	%	62	405	77	70

T: (902)468-9664
 F: (902)468-9658



CONTAMINATION

Soot %	%	1.9	5.9	2.5	1.3
Nitration (PA)	%	85	373	97	73
Sulfation (PA)	%	65	114	78	69
Glycol	%	NEG	NEG	0.0	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	7	7	8
Sodium	ppm	4	11	6	2
Potassium	ppm	3	3	5	4

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	13	52	24	8
Copper	ppm	1	9	416	10
Lead	ppm	<1	15	13	1
Tin	ppm	0	1	1	<1
Aluminum	ppm	3	3	2	1
Chromium	ppm	<1	1	<1	<1
Molybdenum	ppm	51	93	30	11
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	0	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	1800	2329	1908	2144
Magnesium	ppm	816	44	589	219
Zinc	ppm	1337	1241	1438	1269
Phosphorus	ppm	1194	1049	1171	1022
Barium	ppm	0	0	<1	<1
Boron	ppm	43	16	11	16

Depot: AIMDAR
 Unique No: 5644571
 Signed: Wes Davis
 Report Date: 19 Sep 2023



GRAPHS

