CONSTRUCTION EQUIPMENT

LIEBHERR R924 038847-1318 - Diesel Engine

Sample No: LH0260467

Oil Type: PETRO CANADA 10W40

SAMPLE INFORMATION

Sample Number	LH0260467	LH0246968	LH0234049	LH0221961
Sample Date	25 Aug 2023	13 Jan 2023	09 Sep 2022	17 Jan 2022
Machine Hours	9529	8980	8644	7053
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL

	ONDIT	ION				
Visc @ 100°C	cSt	12.9	13.6	12.9	0 13.4	
Oxidation (PA)	%	53	61	70	29	
-						

	TAMIN	ATION			
Soot %	%	0.1	0.2	0.4	0
Nitration (PA)	%	65	63	78	35
Sulfation (PA)	%	53	56	59	39
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	0 9	0 9	9	8
Sodium	ppm	06	2	3	2
Potassium	ppm	0 14	○ <1	0	02

Iron	ppm	28	0 12	0 15	0 11
Copper	ppm	0 19	0 2	03	2
Lead	ppm	04	01	0 4	3
Tin	ppm	0 2	○ <1	○ <1	○ <1
Aluminum	ppm	5	0 17	0 4	0 4
Chromium	ppm	02	○ <1	◯ <1	○ <1
Molybdenum	ppm	0 48	○ 59	61	6 0
Nickel	ppm	0	○ <1	◯ <1	○ <1
Titanium	ppm	<1	<1	0	0
Silver	ppm	○ <1	0	0	0
Manganese	ppm	01	○ <1	◯ <1	○ <1
Vanadium	ppm	0	0	0	0

o	

	IIVES				
Calcium	ppm	0 1675	0 1114	0 1133	0 1082
Magnesium	ppm	0 776	957	1006	0 1038
Zinc	ppm	O 1162	0 1216	1257	1268
Phosphorus	ppm	0 1041	0 1079	1096	0 1082
Barium	ppm	0 24	0	0	0
Boron	ppm	0 25	01	○ <1	2





ECOWASTE INDUSTRIES LTD. 15111 WILLIAMS ROAD

RICHMOND, BC CA V6W 1G9 Contact: Service Manager

T: (604)277-1410 F:

Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:ECORICUnique No:5632364Signed:Kevin MarsonReport Date:30 Aug 2023

Report Id: ECORIC [WCAMIS] 02579304 (Generated: 09/01/2023 13:55:40) Rev: 1

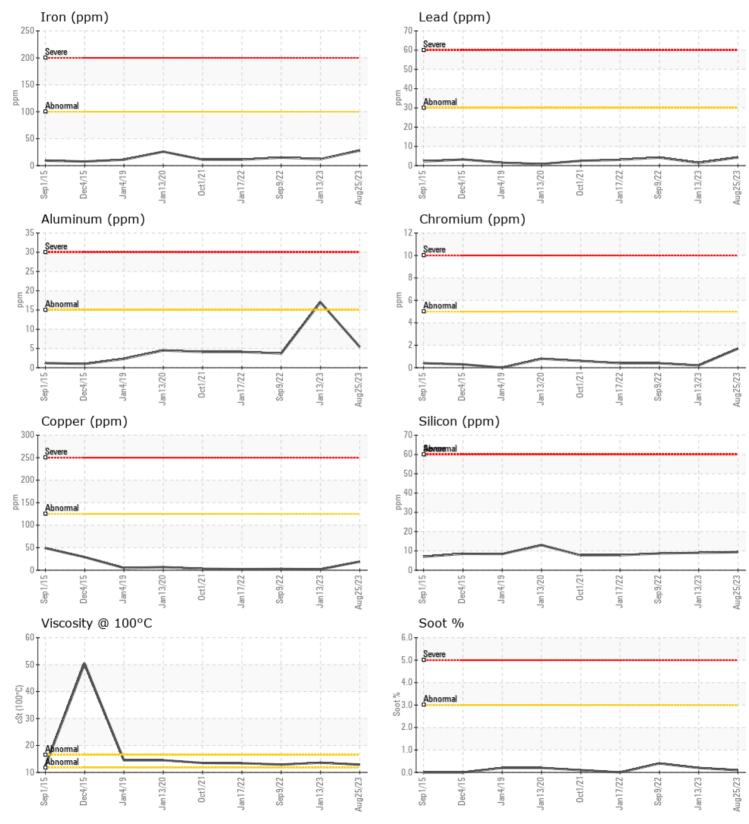
Submitted By: Isabelle Langlois





GRAPHS

0



Report Id: ECORIC [WCAMIS] 02579304 (Generated: 09/01/2023 13:55:43) Rev: 1

Submitted By: Isabelle Langlois