

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R934CEW 031290-027 - Diesel Engine

Sample No: LH0178201

Oil Type: KENDALL 10W30



#### Sample Information

Sample Number	LH0178201	LH0178195	LH0247113	LH0235012
Sample Date	02 Apr 2024	16 Nov 2023	21 Jun 2023	24 Nov 2022
Machine Hours	18000	17500	17080	16500
Oil Hours	500	500	580	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

**DOMINION NICKEL ALLOYS LTD.**

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#### Oil Condition

Visc @ 100°C	cSt	12.1	11.8	11.4	11.6
Oxidation (PA)	%	54	60	58	59



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	2	2.1	1.7	1.1
Nitration (PA)	%	75	69	68	60
Sulfation (PA)	%	64	63	60	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	8	9	8
Sodium	ppm	3	2	2	2
Potassium	ppm	1	0	<1	0

#### 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	24	22	30	12
Copper	ppm	4	4	7	2
Lead	ppm	0	<1	<1	0
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	2	1	1	1
Chromium	ppm	<1	<1	<1	0
Molybdenum	ppm	25	68	71	62
Nickel	ppm	0	0	<1	0
Titanium	ppm	5	0	<1	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	1579	1767	1726	1751
Magnesium	ppm	620	438	446	492
Zinc	ppm	1182	1196	1169	1185
Phosphorus	ppm	1012	996	1045	1072
Barium	ppm	0	<1	0	0
Boron	ppm	53	62	62	76

Depot: DOMBUR  
Unique No: 5763622  
Signed: Wes Davis  
Report Date: 22 Apr 2024



### Graphs

