

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R934CEW 031290-027 - Swing Drive

Sample No: LH0178198

Oil Type: GEAR OIL SAE 80W90



Sample Information

Sample Number	LH0178198	LH0261469	LH0224446	LH0195427
Sample Date	02 Apr 2024	21 Jun 2023	16 May 2022	16 Jun 2021
Machine Hours	18000	17080	16000	14940
Oil Hours	1000	1080	560	1000
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

DOMINION NICKEL ALLOYS LTD.

834 APPLEBY LINE
BURLINGTON, ON
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Contact: Trevor Taylor
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Oil Condition

Visc @ 40°C	cSt	136	127	123	125
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Contamination

Water	%	NEG	NEG	0.896	0.522
Silicon	ppm	8	8	7	4
Sodium	ppm	<1	<1	<1	<1
Potassium	ppm	1	2	2	<1



Wear Metals

Iron	ppm	499	638	917	986
Copper	ppm	177	326	333	222
Lead	ppm	4	9	10	7
Tin	ppm	6	6	6	2
Aluminum	ppm	<1	0	<1	<1
Chromium	ppm	6	8	12	14
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	<1	<1	2	2
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	<1	<1
Manganese	ppm	4	5	8	10
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	6	6	8	11
Magnesium	ppm	<1	1	2	3
Zinc	ppm	21	23	31	29
Phosphorus	ppm	533	554	603	697
Barium	ppm	0	0	0	0
Boron	ppm	8	8	22	52

Diagnosis

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate concentration of water present in the oil. Excessive free water present. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: DOMBUR
Unique No: 5763842
Signed: Kevin Marson
Report Date: 22 Apr 2024



Graphs

