

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50 1203-77107 - Front Differential

Sample No: LH0272551

Oil Type: CHEVRON DELO GEAR ESI OIL 80W90



**AMERICAN STATE EQUIPMENT CO.**  
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#### SAMPLE INFORMATION

Sample Number	LH0272551	LH0254740	LH0243169	LH0229284
Sample Date	28 Nov 2023	16 Jun 2023	22 Dec 2022	31 May 2022
Machine Hours	20037	18994	17940	16365
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	120	131	133	140
		●	●	●	●



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	● 5	● 0	● 1	● <1
Sodium	ppm	● 0	● <1	● 0	● <1
Potassium	ppm	● 0	● <1	● 3	● 1



#### WEAR METALS

Iron	ppm	● 8	● 2	● 6	● 2
Copper	ppm	● 10	● 1	● 4	● 1
Lead	ppm	● 0	● 0	● 0	● 0
Tin	ppm	● 0	● 0	● 0	● 0
Aluminum	ppm	● 0	● <1	● <1	● 0
Chromium	ppm	● 0	● 0	● 0	● 0
Molybdenum	ppm	● 0	● <1	● 1	● <1
Nickel	ppm	● 0	● 0	● 0	● <1
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	● <1	● <1	● <1	● <1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	● 42	● 41	● 70	● 57
Magnesium	ppm	● 10	● 5	● 10	● 8
Zinc	ppm	● 19	● 13	● 27	● 17
Phosphorus	ppm	● 758	● 855	● 780	● 774
Barium	ppm	● 0	● 0	● 0	● 0
Boron	ppm	● 2	● 7	● 17	● 19

#### Diagnosis

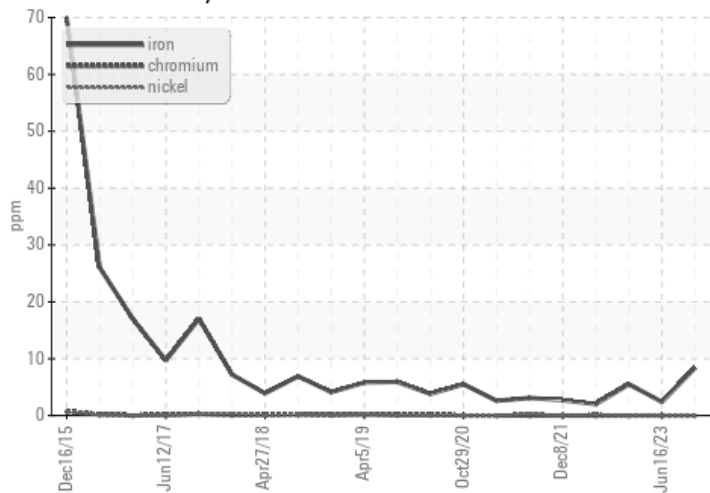
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: LEC0008  
 Unique No: 10781656  
 Signed: Sean Felton  
 Report Date: 14 Dec 2023

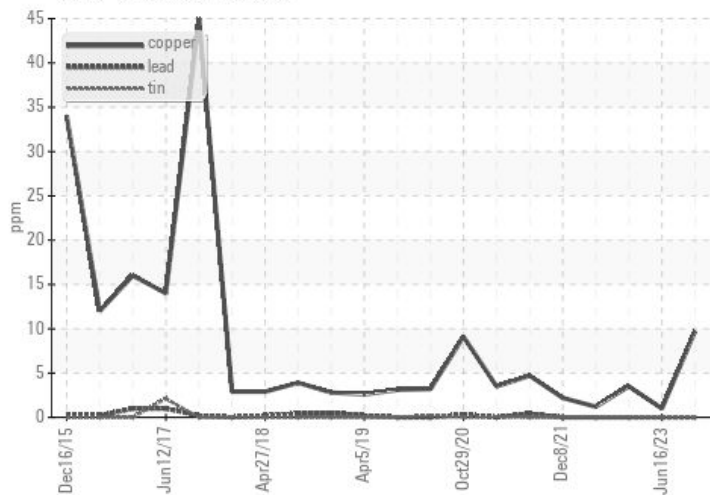


### GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

