

LIEBHERR

CONSTRUCTION EQUIPMENT



054897-1650 - Hydraulic System

Sample No: LH0292410

Oil Type: TOTAL BIOHYDRAN SE 46



Sample Information

Sample Number	LH0292410	LH0243057	---	---
Sample Date	18 Jun 2024	17 Jan 2023	---	---
Machine Hours	1937	641	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Not Changd	---	---
Sample Status	SEVERE	NORMAL	---	---

Delsan - American Iron and Metal
 2187 Montee Masson
 Laval, QC
 CA H7B 0A6
 Contact: MANNY MARQUES
 mmarques@delsan-aim.com
 T:
 F:



Oil Condition

Visc @ 40°C	cSt	45.6	45.9	---	---
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Contamination

Water	%	NEG	NEG	---	---
Particles >4µm		32628	6038	---	---
Particles >6µm		10901	213	---	---
Particles >14µm		1409	12	---	---
ISO 4406:1999 (c)		22/21/18	20/15/11	---	---
Silicon	ppm	4	2	---	---
Sodium	ppm	4	1	---	---
Potassium	ppm	1	0	---	---

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Iron ppm levels are severe. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



Wear Metals

PQ		2	---	---	---
Iron	ppm	140	34	---	---
Copper	ppm	4	2	---	---
Lead	ppm	2	<1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	2	1	---	---
Chromium	ppm	7	3	---	---
Molybdenum	ppm	0	0	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	2	<1	---	---
Vanadium	ppm	0	0	---	---



Additives

Calcium	ppm	17	5	---	---
Magnesium	ppm	1	<1	---	---
Zinc	ppm	53	29	---	---
Phosphorus	ppm	246	243	---	---
Barium	ppm	0	0	---	---
Boron	ppm	1	<1	---	---

Depot: DEL782MON
Unique No: 5801724
Signed: Kevin Marson
Report Date: 27 Jun 2024



Graphs

