

LIEBHERR

CONSTRUCTION EQUIPMENT



46356 - Hydraulic System

Sample No: LH0284400

Oil Type: TOTAL BIOHYDRAN SE 46



SAMPLE INFORMATION

Sample Number	LH0284400	LH0284399	LH	LH0250827
Sample Date	04 Feb 2024	31 Jan 2024	03 May 2023	24 Feb 2023
Machine Hours	5004	5001	4402	4058
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Changed	Not Changd	Not Changd
Sample Status	ATTENTION	---	ABNORMAL	ABNORMAL

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	47.6	43.6	44.2	44.6
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CONTAMINATION

Water	%	NEG	0.308	NEG	NEG
Particles >4µm		22295	224763	67621	97012
Particles >6µm		2683	17756	11921	4771
Particles >14µm		225	18	451	15
ISO 4406:1999 (c)		22/19/15	25/21/11	23/21/16	24/19/11
Silicon	ppm	2	4	4	6
Sodium	ppm	3	7	6	6
Potassium	ppm	2	0	2	2

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

PQ		---	---	0	0
Iron	ppm	29	101	66	98
Copper	ppm	1	2	2	2
Lead	ppm	<1	<1	<1	1
Tin	ppm	0	<1	<1	1
Aluminum	ppm	<1	2	1	2
Chromium	ppm	<1	3	<1	1
Molybdenum	ppm	0	0	0	0
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	1	2
Vanadium	ppm	0	0	0	0



ADDITIVES

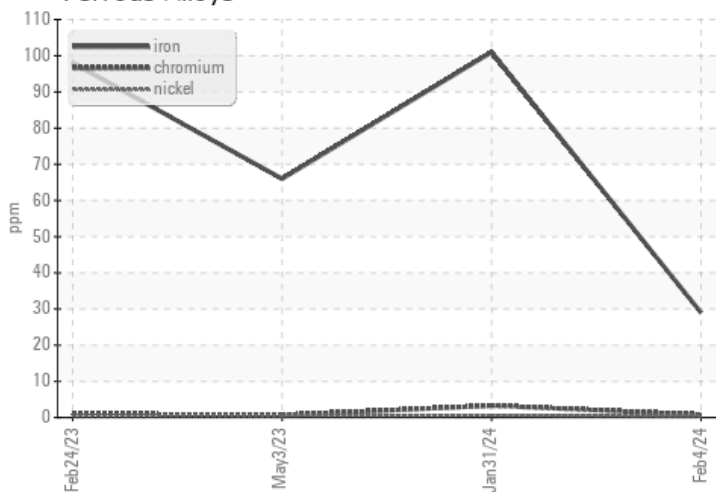
Calcium	ppm	5	8	8	22
Magnesium	ppm	<1	2	2	3
Zinc	ppm	23	64	47	71
Phosphorus	ppm	354	315	317	267
Barium	ppm	0	<1	0	<1
Boron	ppm	2	3	1	2

Depot: DEL782MON
 Unique No: 5733806
 Signed: Wes Davis
 Report Date: 21 Feb 2024

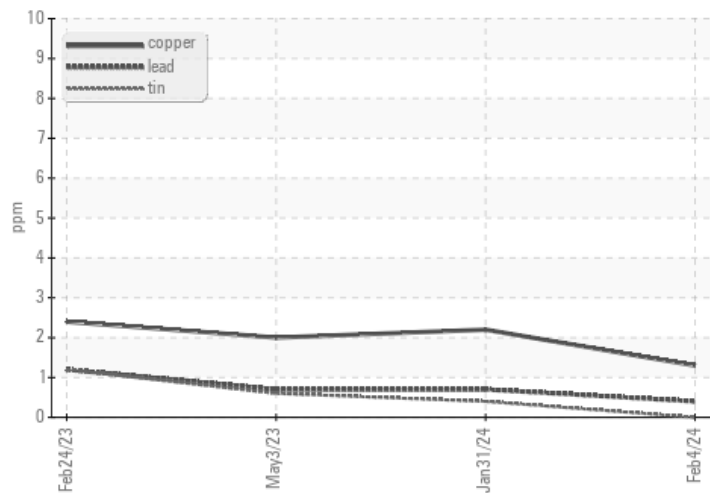


GRAPHS

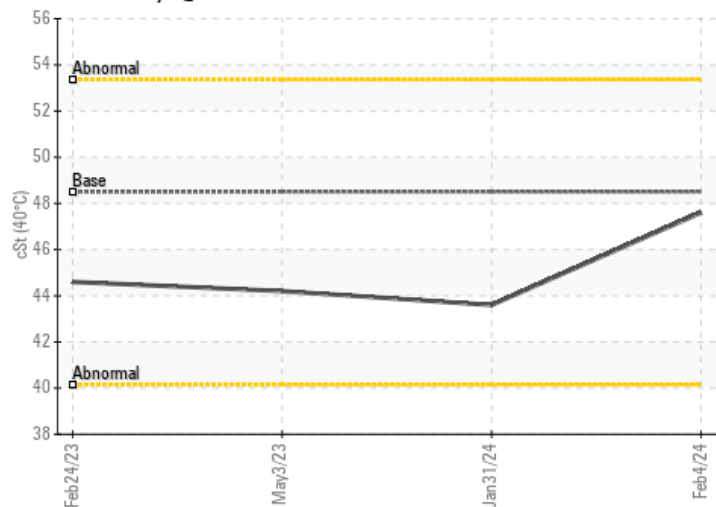
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

