

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L566 025731-460 - Hydraulic System

Sample No: LHMC89228

Oil Type: LIEBHERR BASIC 68



SAMPLE INFORMATION

Sample Number	LHMC89228	LHMC74411	LHMC71667	LHMC74993
Sample Date	13 Feb 2014	09 Sep 2013	20 Jun 2013	22 Mar 2013
Machine Hours	0	5291	4716	4019
Oil Hours	500	1291	687	0
Oil Changed	Not Changd	Not Changd	Not Changd	Changed
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

LIEBHERR EQUIPMENT SOURCE

4100 CHESTNUT AVENUE
NEWPORT NEWS, VA
US 23607

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OIL CONDITION

Visc @ 40°C	cSt	46.48	61.91	66.4	64.4
Acid Number (AN)	mg KOH/g	0.501	0.496	0.619	0.538



CONTAMINATION

Particles >4µm		7926	600	6417	11801
Particles >6µm		2010	326	292	1100
Particles >14µm		25	55	10	7
ISO 4406:1999 (c)		20/18/12	16/16/13	20/15/10	21/17/10
Silicon	ppm	6	8	6	11
Sodium	ppm	1	2	2	2
Potassium	ppm	<1	2	0	0

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.



WEAR METALS

Iron	ppm	7	8	5	7
Copper	ppm	5	8	4	5
Lead	ppm	2	5	3	4
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	<1	1	<1
Chromium	ppm	2	2	1	2
Molybdenum	ppm	0	<1	<1	0
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	<1	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	80	272	114	206
Magnesium	ppm	<1	2	<1	<1
Zinc	ppm	307	360	301	320
Phosphorus	ppm	252	295	245	267
Barium	ppm	0	0	0	0
Boron	ppm	<1	2	0	<1

Depot: LIEBHERRUS

Unique No: 6545284

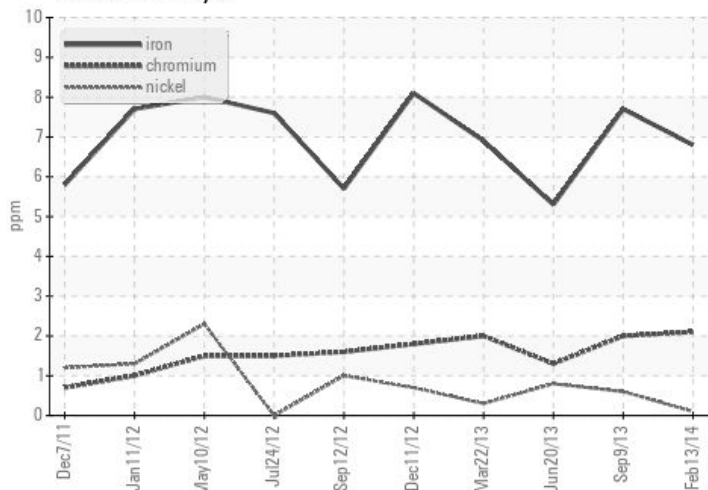
Signed: Jonathan Hester

Report Date: 06 Mar 2014

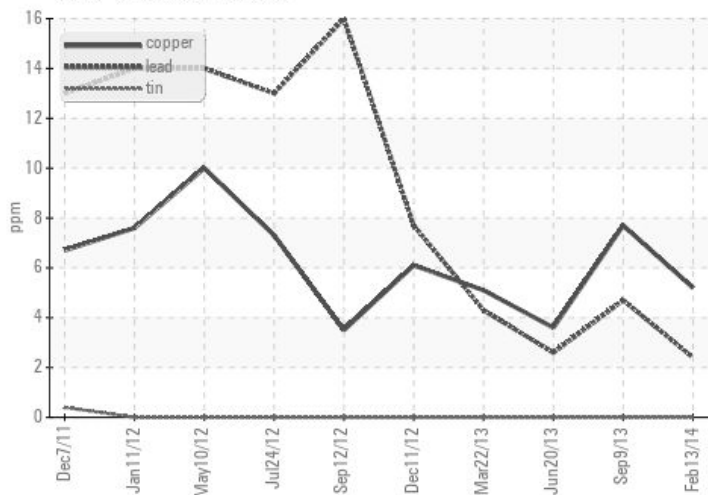


GRAPHS

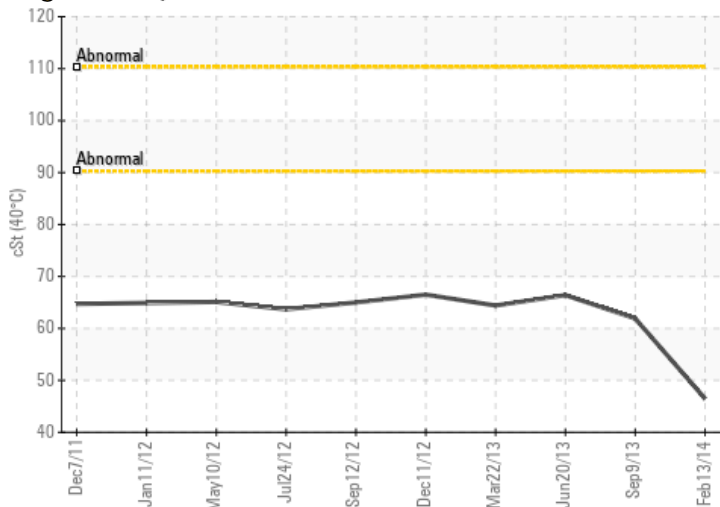
Ferrous Alloys



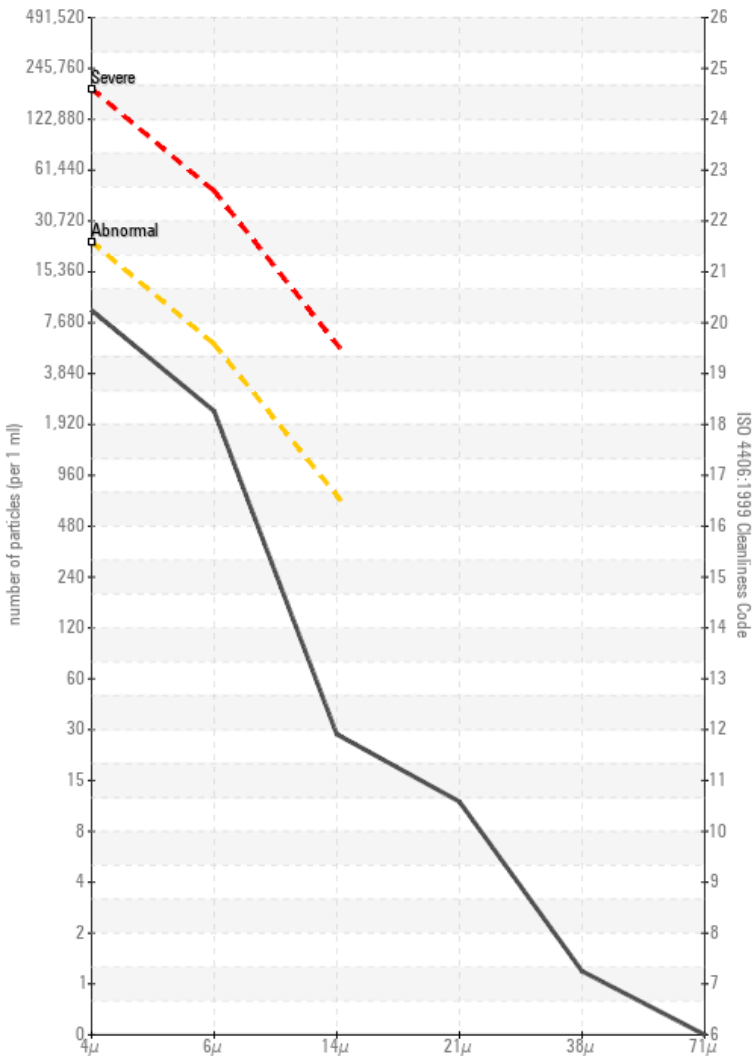
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

