

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R934 036784 - Hydraulic System

Sample No: LH0070665

Oil Type: CHEVRON HYDRAULIC OIL AW ISO 46



#### SAMPLE INFORMATION

Sample Number	LH0070665	---	---	---
Sample Date	25 Oct 2013	---	---	---
Machine Hours	477	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	ATTENTION	---	---	---

#### LIEBHERR CANADA LTD.

10374 267 ST.  
ACHESON, AB  
CA T7X 6A2  
Contact: Rodney Budzak  
rodney.budzak@liebherr.com  
T: (780)962-6799  
F: (780)962-6799



#### OIL CONDITION

Visc @ 40°C	cSt	● 43.4	---	---	---
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#### CONTAMINATION

Particles >4µm		● 9145	---	---	---
Particles >6µm		● 1094	---	---	---
Particles >14µm		● 52	---	---	---
ISO 4406:1999 (c)		20/17/13	---	---	---
Silicon	ppm	● 2	---	---	---
Sodium	ppm	● 3	---	---	---
Potassium	ppm	● <1	---	---	---



#### WEAR METALS

Iron	ppm	● 11	---	---	---
Copper	ppm	● 3	---	---	---
Lead	ppm	● <1	---	---	---
Tin	ppm	● 0	---	---	---
Aluminum	ppm	● <1	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● <1	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	● <1	---	---	---
Vanadium	ppm	0	---	---	---



#### ADDITIVES

Calcium	ppm	● 1856	---	---	---
Magnesium	ppm	● 8	---	---	---
Zinc	ppm	● 842	---	---	---
Phosphorus	ppm	● 693	---	---	---
Barium	ppm	● <1	---	---	---
Boron	ppm	● <1	---	---	---

#### Diagnosis

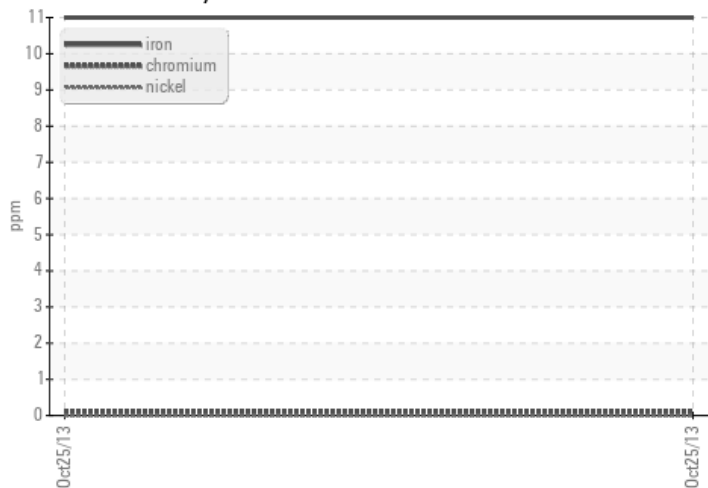
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as CHEVRON HYDRAULIC OIL AW ISO 46, however, a fluid match indicates that this fluid is SAE 75W80 Tractor TDH Fluid. Please confirm the oil type and grade on your next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: LIESPR  
Unique No: 3827082  
Signed: Bill Quesnel  
Report Date: 11 Nov 2013

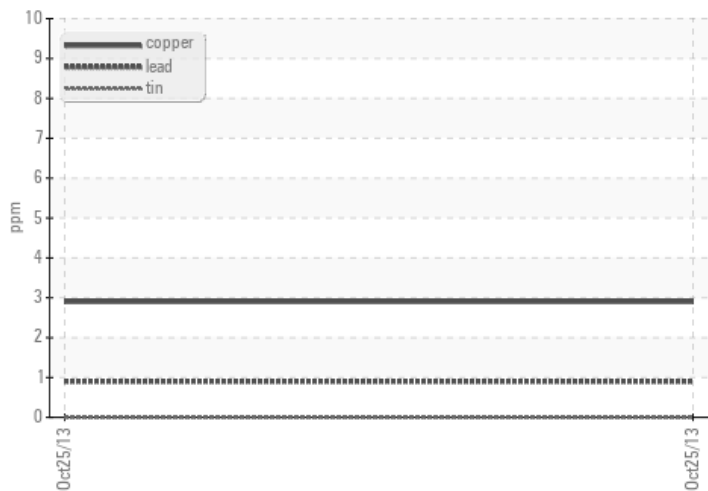


### GRAPHS

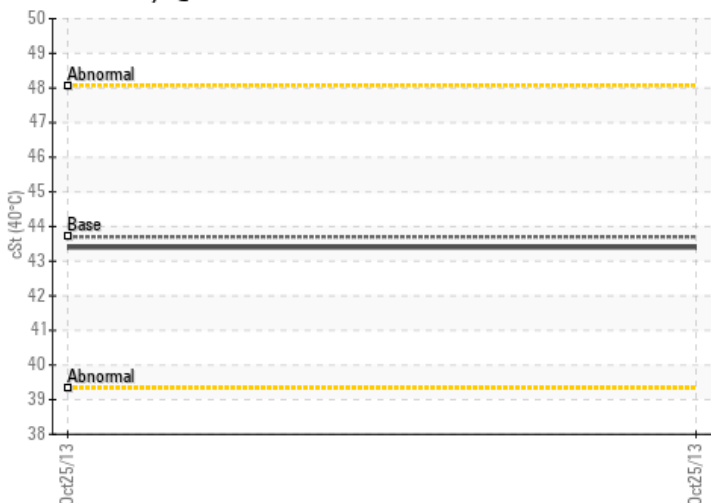
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count

