

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### 40027 - Port Hydraulic System

Sample No: LH0247111

Oil Type: AW HYDRAULIC OIL ISO 46

#### DOMINION NICKEL ALLOYS LTD.

834 APPLEBY LINE

BURLINGTON, ON

CA L7L 2Y7

Contact: Trevor Taylor

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#### Diagnosis

We advise that you check for visible metal particles in the oil. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Light concentration of visible metal present. 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.



## SAMPLE INFORMATION

Sample Number		LH0247111	LH0224447	LH0131514	---
Sample Date		14 Jun 2023	07 Jun 2022	07 Jul 2020	---
Machine Hours		13749	12360	9084	---
Oil Hours		3672	2098	4084	---
Oil Changed		Not Changd	Not Changd	Changed	---
Sample Status		ABNORMAL	NORMAL	ABNORMAL	---



## OIL CONDITION

Visc @ 40°C	cSt	● 43.4	● 43.4	● 43.6	---
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## CONTAMINATION

Particles >4µm		● 8921	● 933	● 6415	---
Particles >6µm		● 653	● 32	● 423	---
Particles >14µm		● 16	● 3	● 30	---
ISO 4406:1999 (c)		20/17/11	17/12/9	20/16/12	---
Silicon	ppm	● <1	● <1	● 1	---
Sodium	ppm	● 1	● <1	● 1	---
Potassium	ppm	● <1	● <1	● <1	---



## WEAR METALS

Iron	ppm	● 7	● 8	● 10	---
Copper	ppm	● 3	● 4	● 4	---
Lead	ppm	● <1	● <1	● <1	---
Tin	ppm	● 0	● 0	● 0	---
Aluminum	ppm	● <1	● <1	● <1	---
Chromium	ppm	● 7	● 9	● 14	---
Molybdenum	ppm	● <1	● 0	● <1	---
Nickel	ppm	● 0	<1	<1	---
Titanium	ppm	0	<1	0	---
Silver	ppm	0	0	<1	---
Manganese	ppm	● <1	● <1	● <1	---
Vanadium	ppm	0	0	0	---



## ADDITIVES

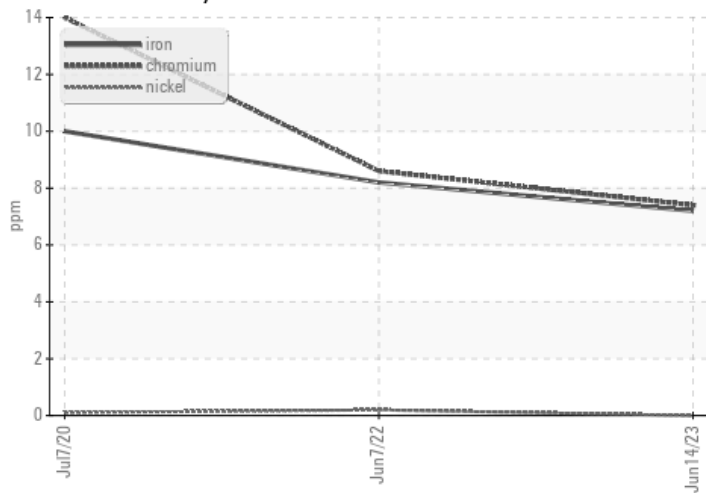
Calcium	ppm	● 78	● 99	● 186	---
Magnesium	ppm	● 2	● 2	● 2	---
Zinc	ppm	● 442	● 442	● 516	---
Phosphorus	ppm	● 379	● 364	● 413	---
Barium	ppm	● 0	● 0	● 0	---
Boron	ppm	● 1	● <1	● 1	---

Depot: DOMBUR  
 Unique No: 5607455  
 Signed: Kevin Marson  
 Report Date: 19 Jul 2023

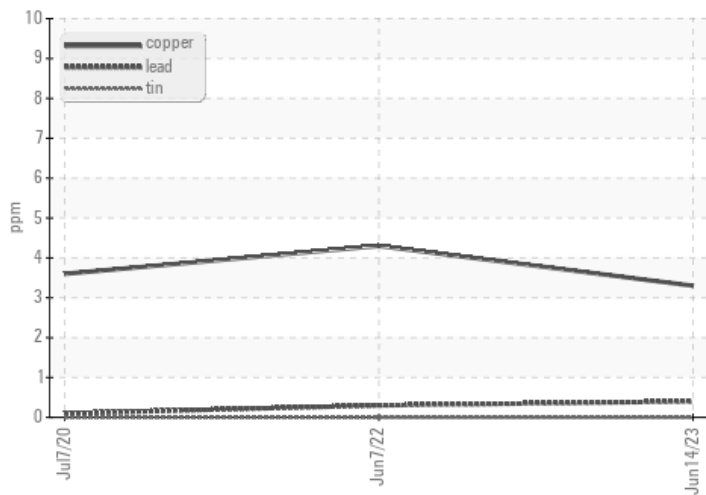


### GRAPHS

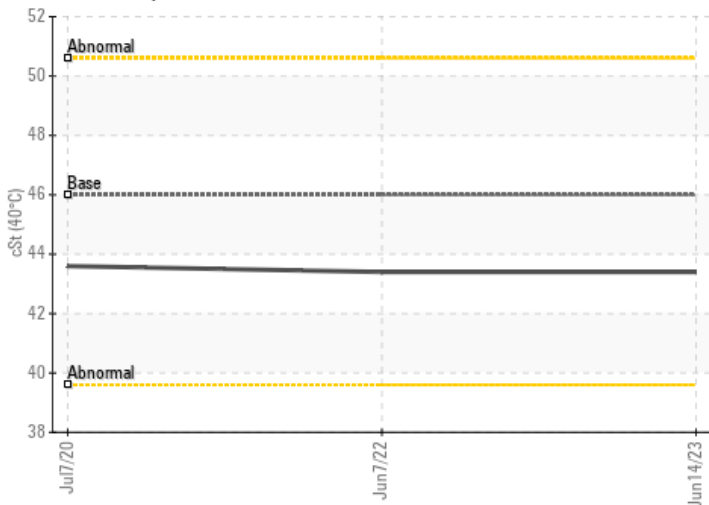
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C



Particle Filter (Magn: 100 x)

