

# LABORATORY ANALYSIS



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Department **MACHINING**  
 Equipment No. **Okuma LB3000 (00033)**  
 System **Hydraulic System**  
 Oil Type **ENGINEERED LUBRICANTS ENLUBE 39-NZAW HYDRAULIC OIL (5 GAL)**

**NMCA-PRN**  
 DIV. OF EMERSON ELECTRIC CO., P. O. BOX 326  
 PRINCETON, IN  
 US 47670  
 Contact: Charlie English  
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## Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the oil. 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.

## Sample Information

Lab Number	New	2404-01076	2401-00654	2308-01340
Date of Sample	(Typical)	<b>23 Apr 2024</b>	25 Jan 2024	24 Aug 2023
Oil Added		<b>UNK</b>	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		<b>ATTENTION</b>	ATTENTION	NORMAL

## VISCOSITY @ 100F or 40C (ASTM D-445)

SSU Vis. @ 100F	SSU	173.7	173.8	173.5
cSt Vis. @ 40C	cSt	32.0	33.62	33.56

## COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	1.0	1.0	0.5
		<b>1.0</b>	1.0	0.5

## PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/17/14	16/13/9	16/14/11	16/14/11
4 Micron & Larger	particles/ml	>5000	<b>517</b>	480	473
6 Micron & Larger	particles/ml	>1300	<b>55</b>	106	130
14 Micron & Larger	particles/ml	>160	<b>2</b>	13	20
21 Micron & Larger	particles/ml	>40	<b>0</b>	4	6
38 Micron & Larger	particles/ml	>10	<b>0</b>	0	0
70 Micron & Larger	particles/ml	>3	<b>0</b>	0	0

## ICP - OILS (REPORTED IN PARTS PER MILLION)

Aluminum (Al)	ppm	<b>&lt;5</b>	<5	<5	
Antimony (Sb)	ppm	<b>&lt;5</b>	<5	<5	
Cadmium (Cd)	ppm	<b>&lt;5</b>	<5	<5	
Chromium (Cr)	ppm	<b>&lt;5</b>	<5	<5	
Cobalt (Co)	ppm	<b>&lt;5</b>	<5	<5	
Copper (Cu)	ppm	<b>&lt;5</b>	<5	<5	
Iron (Fe)	ppm	<b>&lt;5</b>	<5	<5	
Lead (Pb)	ppm	<b>&lt;5</b>	<5	<5	
Manganese (Mn)	ppm	<b>&lt;5</b>	<5	<5	
Molybdenum(Mo)	ppm	<b>&lt;5</b>	<5	<5	
Nickel (Ni)	ppm	<b>&lt;5</b>	<5	<5	
Silver (Ag)	ppm	<b>&lt;5</b>	<5	<5	
Tin (Sn)	ppm	<b>&lt;5</b>	<5	<5	
Titanium (Ti)	ppm	<b>&lt;5</b>	<5	<5	
Vanadium (V)	ppm	<b>&lt;5</b>	<5	<5	
Barium (Ba)	ppm	<b>&lt;5</b>	<5	<5	
Boron (B)	ppm	<b>&lt;5</b>	<5	<5	
Calcium (Ca)	ppm	<b>44</b>	43	51	
Magnesium (Mg)	ppm	<b>&lt;5</b>	<5	<5	
Phosphorus(P)	ppm	775	<b>137</b>	131	148
Silicon (Si)	ppm	<b>&lt;5</b>	<5	<5	
Zinc (Zn)	ppm	<b>65</b>	63	71	
Sulfur (S)	ppm	1920	<b>1,340</b>	1,240	1,510

Customer Id: NMCPRI  
 Sample No.: EN0000241  
 Lab Number: 24041076  
 Test Package: TEST



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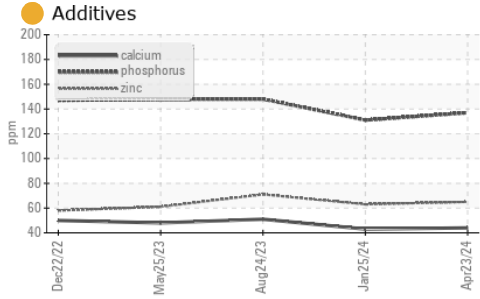
To discuss the diagnosis or test data:

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# OIL ANALYSIS REPORT



### DR FERROGRAPHY READINGS

L		■ 1.6	■ 3.0	■ 2.6
S		■ 0.3	■ 1.0	■ 0.6
WPC	DL + DS	■ 1.9	■ 4	■ 3.2

### Contamination

Water	>0.05	<b>NEG</b>	NEG	NEG
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