

LABORATORY ANALYSIS



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Department **SUB-ASSY MACHINING OILS**
Equipment No. **1404 CNC CYLINDRICAL GRINDER (00002)**
System **Unknown Component**
Oil Type **ENGINEERED LUBRICANTS ENSPIN 78-AW-PF (--- GAL)**

Diagnosis

All conditions are GREEN. Continue use of oil and filter element at this time. All component wear rates are normal. There is no indication of any contamination in the sample. The system and fluid cleanliness is acceptable. The condition of the sample is acceptable for the time in service.

Sample Information

Lab Number	New	2403-00536	2311-00551	2308-00185
Date of Sample	(Typical)	14 Mar 2024	16 Nov 2023	03 Aug 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		71.1	67.3	63.9
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		NORMAL	SEVERE	ATTENTION

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

SSU Vis. @ 100F	SSU	80.1	79.6	76.5
cSt Vis. @ 40C	cSt	15	14.39	13.67

COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	0.5	1.0	1.5	1.0

PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/17/14	19/17/13	23/21/17	20/18/15
4 Micron & Larger	particles/ml	>5000	2,676	42,376	5,492
6 Micron & Larger	particles/ml	>1300	803	12,755	1,866
14 Micron & Larger	particles/ml	>160	71	937	166
21 Micron & Larger	particles/ml	>40	17	245	37
38 Micron & Larger	particles/ml	>10	1	14	2
70 Micron & Larger	particles/ml	>3	0	1	1

ICP - OILS (REPORTED IN PARTS PER MILLION)

Aluminum (Al)	ppm		<5	<5	<5
Antimony (Sb)	ppm		<5	<5	<5
Cadmium (Cd)	ppm		<5	<5	<5
Chromium (Cr)	ppm		<5	<5	<5
Cobalt (Co)	ppm		<5	<5	<5
Copper (Cu)	ppm		<5	<5	<5
Iron (Fe)	ppm		<5	<5	<5
Lead (Pb)	ppm		<5	<5	<5
Manganese (Mn)	ppm		<5	<5	<5
Molybdenum(Mo)	ppm		<5	<5	<5
Nickel (Ni)	ppm		<5	<5	<5
Silver (Ag)	ppm		<5	<5	<5
Tin (Sn)	ppm		<5	<5	<5
Titanium (Ti)	ppm		<5	<5	<5
Vanadium (V)	ppm		<5	<5	<5
Barium (Ba)	ppm		<5	<5	<5
Boron (B)	ppm		<5	<5	<5
Calcium (Ca)	ppm	109	102	82	96
Magnesium (Mg)	ppm		<5	<5	<5
Phosphorus(P)	ppm	533	567	473	514
Silicon (Si)	ppm		<5	<5	<5
Zinc (Zn)	ppm	665	652	570	639
Sulfur (S)	ppm	1640	1,490	1,200	1,410

Customer Id: ENC0658001
Sample No.: EN24030536
Lab Number: 24030536
Test Package: TEST



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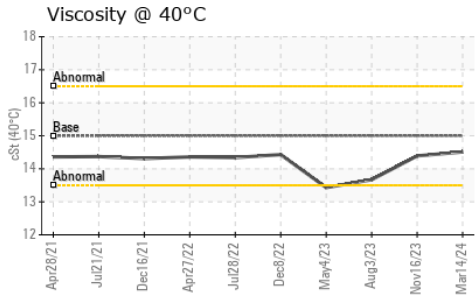
To discuss the diagnosis or test data:

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To change component or sample information:

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OIL ANALYSIS REPORT



DR FERROGRAPHY READINGS

L		12.3	46.4	5.0
S		0.1	9.4	1.1
WPC	DL + DS	12.4	55.8	6.1

Contamination

Water	NEG	NEG	NEG
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