

LABORATORY ANALYSIS



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Department **WINDING**
Equipment No. **BLOC17 BETA BLOCKER (00144)**
System **Hydraulic System**
Oil Type **ENGINEERED LUBRICANTS ENLUBE 20-AW (--- GAL)**

Diagnosis

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. L, % large particles, severity index and wpc levels are abnormal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sample Information

Lab Number	New	2405-00150	2312-00789	2312-00764
Date of Sample	(Typical)	28 Apr 2024	14 Dec 2023	14 Dec 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

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

SSU Vis. @ 100F	SSU	228.8	227.3	222.0
cSt Vis. @ 40C	cSt	46	44.04	43.01

COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	0.5	0.5	0.5

PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/18/14	21/19/16	21/19/16	21/19/15
4 Micron & Larger	particles/ml	>5000	▲ 19,332	▲ 16,510	▲ 15,899
6 Micron & Larger	particles/ml	>2500	● 3,863	▲ 4,795	▲ 4,524
14 Micron & Larger	particles/ml	>160	▲ 453	▲ 379	▲ 191
21 Micron & Larger	particles/ml	>40	▲ 163	▲ 105	▲ 52
38 Micron & Larger	particles/ml	>10	13	5	1
70 Micron & Larger	particles/ml	>3	1	0	0

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	102	108	106
Magnesium (Mg)	ppm	<5	<5	<5
Phosphorus(P)	ppm	582	622	536
Silicon (Si)	ppm	<5	<5	<5
Zinc (Zn)	ppm	715	730	642
Sulfur (S)	ppm	1,590	1,620	1,510

Customer Id: MOTMCA
Sample No.: EN24050150
Lab Number: 24050150
Test Package: TEST

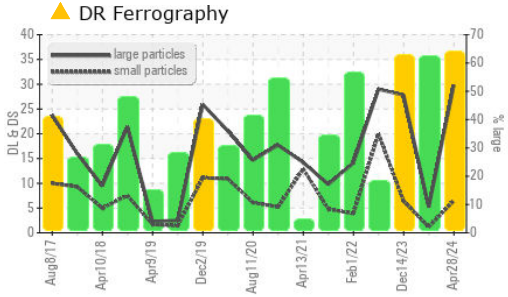


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OIL ANALYSIS REPORT



DR FERROGRAPHY READINGS

L		▲ 29.8	▲ 27.8	■ 5.2
S		■ 6.5	■ 6.4	■ 1.2
WPC	DL + DS	▲ 36.3	▲ 34.2	■ 6.4

Contamination

Water	>0.05	NEG	NEG	NEG
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