

LABORATORY ANALYSIS



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COPELAND (MHDS)
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Department **REYLAM-PRESS**
Equipment No. **TENSC0302 TENSION REWIND #2 (SCROLL 3) (00170)**
System **Hydraulic System**
Oil Type **ENGINEERED LUBRICANTS ENLUBE 30-AW (--- GAL)**

Diagnosis

All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. The condition of the oil is acceptable for the time in service.

Sample Information

Lab Number	New	2404-00894	2401-00724	2310-00817
Date of Sample	(Typical)	05 Apr 2024	19 Jan 2024	10 Oct 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		NORMAL	ABNORMAL	ABNORMAL

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

SSU Vis. @ 100F	SSU	314.3	314.7	350.0
cSt Vis. @ 40C	cSt	68.0	60.69	67.46

COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	1.0	1.0	0.5
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PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/18/14	20/17/12	21/19/15	21/19/14
4 Micron & Larger	particles/ml	>5000	9,362	19,367	18,116
6 Micron & Larger	particles/ml	>2500	858	3,010	2,833
14 Micron & Larger	particles/ml	>160	25	182	123
21 Micron & Larger	particles/ml	>40	7	57	29
38 Micron & Larger	particles/ml	>10	0	4	1
70 Micron & Larger	particles/ml	>3	0	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	88	95	67
Magnesium (Mg)	ppm	<5	<5	<5
Phosphorus(P)	ppm	521	519	529
Silicon (Si)	ppm	<5	<5	<5
Zinc (Zn)	ppm	668	634	644
Sulfur (S)	ppm	1,490	1,540	1,790

Customer Id: MOTMCA
Sample No.: EN24040894
Lab Number: 24040894
Test Package: TEST

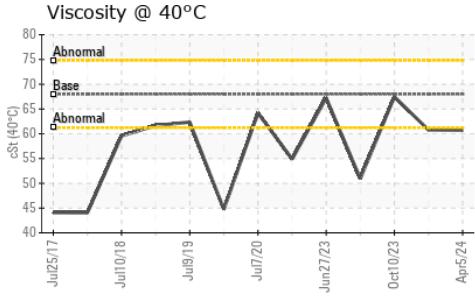


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OIL ANALYSIS REPORT



DR FERROGRAPHY READINGS

L		■ 8.6	■ 16.8	■ 7.1
S		■ 1.9	■ 5.9	■ 4.0
WPC	DL + DS	■ 10.5	■ 22.7	■ 11.1

Contamination

Water	>0.05	NEG	NEG	NEG
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