

LABORATORY ANALYSIS



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Department **REYLAM-PRESS**
 Equipment No. **STRSC04 LEVELER(SCROLL LINE #4) (00148)**
 System **Gearbox**
 Oil Type **ENGINEERED LUBRICANTS ENLUBE 85-EP GEAR OIL (--- GAL)**

COPELAND (MHDS)
 6001 S. 35TH STREET, SUITE D"
 REYNOSA, ZZ
 US
 Contact: GERARDO GUERRERO
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 T:
 F:

Diagnosis

We advise that you check for the source of water entry. We recommend that you drain the fluid from the component if this has not already been done. We recommend an early resample to monitor this condition. Iron (Fe) ppm levels are abnormal. Gear wear is indicated. There is a high concentration of water present in the oil. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sample Information

Lab Number	New	2404-00902	2401-00771	2310-00824
Date of Sample	(Typical)	05 Apr 2024	19 Jan 2024	10 Oct 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		167.4	165.0	161.7
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		SEVERE	ABNORMAL	NORMAL

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

SSU Vis. @ 100F	SSU	261.1	831.2	1,116.4
cSt Vis. @ 40C	cSt	220	▲ 158.1	■ 211.3

% WATER - KARL FISCHER (ASTM E203)

% Water (KF)	%	▲ 2.38	NEG	NEG
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PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>23/22/16	21/17/12	24/23/18	21/20/15
4 Micron & Larger	particles/ml	>80000	■ 16,259	● 109,396	■ 15,693
6 Micron & Larger	particles/ml	>40000	■ 982	● 41,429	■ 5,300
14 Micron & Larger	particles/ml	>640	■ 39	▲ 2,164	■ 297
21 Micron & Larger	particles/ml	>160	■ 11	● 305	■ 67
38 Micron & Larger	particles/ml	>40	■ 0	■ 3	■ 5
70 Micron & Larger	particles/ml	>10	■ 0	■ 0	■ 0

ICP - OILS (REPORTED IN PARTS PER MILLION)

Element	ppm	<5	<5	<5
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	■ 11	■ <5	■ <5
Iron (Fe)	ppm	▲ 68	■ <5	■ <5
Lead (Pb)	ppm	8	<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	11	<5	<5
Calcium (Ca)	ppm	46	15	<5
Magnesium (Mg)	ppm	<5	<5	<5
Phosphorus(P)	ppm	234	■ 449	■ 324
Silicon (Si)	ppm	<5	<5	<5
Zinc (Zn)	ppm	447	129	<5
Sulfur (S)	ppm	1,690	2,530	3,350

Customer Id: MOTMCA
 Sample No.: EN24040902
 Lab Number: 24040902
 Test Package: TEST



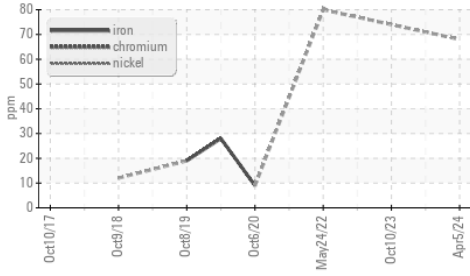
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OIL ANALYSIS REPORT

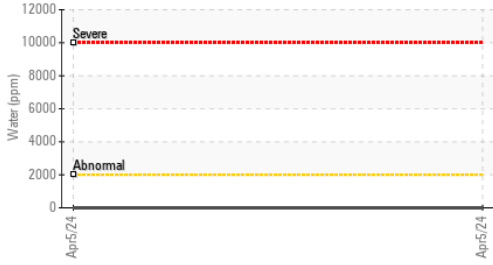
▲ Ferrous Alloys



DR FERROGRAPHY READINGS

L		■ 34.2	■ 26.4	■ 2.0
S		■ 21.6	■ 6.5	■ 1.0
WPC	DL + DS	■ 55.8	■ 32.9	■ 3

Water (KF)



Viscosity @ 40°C

