

LABORATORY ANALYSIS



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Department **REYLAM - TOOL ROOM**
 Equipment No. **GRINDTR03 GRINDER (00149)**
 System **Hydraulic System**
 Oil Type **ENGINEERED LUBRICANTS ENWAY 15-HWO (--- GAL)**

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

Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. 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	2404-00917	2401-00779	2310-00841
Date of Sample	(Typical)	05 Apr 2024	19 Jan 2024	10 Oct 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		160.8	158.3	155.1
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		ATTENTION	ATTENTION	ABNORMAL

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

SSU Vis. @ 100F	SSU	144.0	165.9	163.1	165.5
cSt Vis. @ 40C	cSt		32.07	31.52	31.98

PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>25/23/17	19/17/12	21/19/14	20/18/14
4 Micron & Larger	particles/ml	>320000	2,917	12,924	6,224
6 Micron & Larger	particles/ml	>80000	644	3,010	1,751
14 Micron & Larger	particles/ml	>1300	29	134	104
21 Micron & Larger	particles/ml	>320	7	22	23
38 Micron & Larger	particles/ml	>80	0	1	2
70 Micron & Larger	particles/ml	>20	0	0	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	<5
Chromium (Cr)	ppm		<5	<5	<5
Cobalt (Co)	ppm		<5	<5	<5
Copper (Cu)	ppm		<5	<5	<5
Iron (Fe)	ppm		<5	75	<5
Lead (Pb)	ppm		<5	<5	<5
Manganese (Mn)	ppm	5	<5	<5	<5
Molybdenum(Mo)	ppm	5	<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	251	<5
Boron (B)	ppm	5	<5	<5	<5
Calcium (Ca)	ppm	5	59	5	65
Magnesium (Mg)	ppm	5	<5	<5	<5
Phosphorus(P)	ppm	5	482	625	509
Silicon (Si)	ppm	5	<5	<5	<5
Zinc (Zn)	ppm	5	578	17	617
Sulfur (S)	ppm	9540	1,300	2,280	1,450

DR FERROGRAPHY READINGS

L			0.7	5.2	4.0
S			0.5	1.1	0.6
WPC	DL + DS		1.2	6.3	4.6

Customer Id: MOTMCA
 Sample No.: EN24040917
 Lab Number: 24040917
 Test Package: TEST

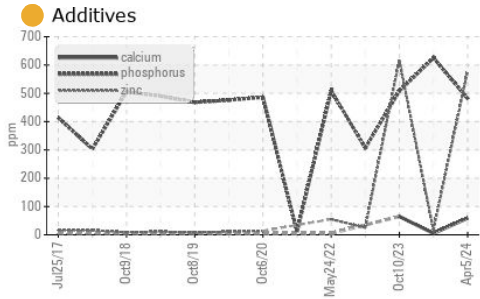


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OIL ANALYSIS REPORT



Contamination

Water	>0.05	NEG	NEG
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