

LABORATORY ANALYSIS



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Department **TRANSFER ATIZAPAN**
Equipment No. **59 HYD KAUFMAN 173 (00077)**
System **Hydraulic System**
Oil Type **ENGINEERED LUBRICANTS ENLUBE 15-AW (--- GAL)**

DIAGNOSIS

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. L, severity index and wpc levels are severe. S and % large particles levels are abnormal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. Zinc (Zn) ppm levels are severely low. cSt Vis. @ 40C is severely high. The viscosity is very high and is no longer within acceptable limits. Viscosity of sample indicates oil is within ISO 100 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

Lab Number	New	2312-00046	2310-00474	2306-00786
Date of Sample	(Typical)	13 Nov 2023	20 Sep 2023	16 Jun 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		SEVERE	SEVERE	SEVERE

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

SSU Vis. @ 100F	SSU	479.8	290.4	288.3
cSt Vis. @ 40C	cSt	32.0	56.14	55.73

COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	RED	7.0	6.0

PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/18/14	25/22/17	25/24/18	25/24/17
4 Micron & Larger	particles/ml	>5000	171,243	230,074	192,843
6 Micron & Larger	particles/ml	>2500	36,951	89,176	85,806
14 Micron & Larger	particles/ml	>160	675	1,841	1,141
21 Micron & Larger	particles/ml	>40	73	231	266
38 Micron & Larger	particles/ml	>10	0	8	19
70 Micron & Larger	particles/ml	>3	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
Chromium (Cr)	ppm	<5	<5	<5
Cobalt (Co)	ppm	<5	<5	<5
Copper (Cu)	ppm	<5	6	5
Iron (Fe)	ppm	17	69	41
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	13	7
Calcium (Ca)	ppm	<5	14	11
Magnesium (Mg)	ppm	<5	<5	<5
Phosphorus(P)	ppm	259	141	96
Silicon (Si)	ppm	<5	<5	<5
Zinc (Zn)	ppm	668	111	107
Sulfur (S)	ppm	202	781	562

Customer Id: ENC0005J03
Sample No.: EN23120046
Lab Number: 23120046
Test Package: TEST



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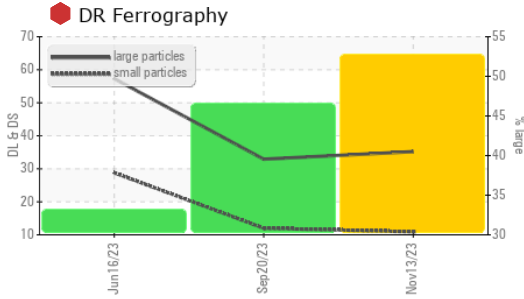
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OIL ANALYSIS REPORT



DR FERROGRAPHY READINGS

L		◆ 35.2	◆ 32.9	◆ 57.3
S		▲ 10.9	▲ 12.0	◆ 28.8
WPC	DL + DS	◆ 46.1	▲ 44.9	◆ 86.1

CONTAMINATION

Water	>0.05	NEG	NEG	NEG
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