

Machine Id
FALK VAC-PAN-13

Component
Gearbox

Fluid
CASTROL AP GEAR LUBRICANT 85W140 (10 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

Wear

Gear wear is indicated.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	ST43248	ST42163	ST42871
Sample Date	Client Info	03 Apr 2024	13 Apr 2023	20 Apr 2022
Machine Age	mths	Client Info	0	0
Oil Age	mths	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	SEVERE	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >200	▲ 234	▲ 468	176
Chromium ppm	ASTM D5185m >15	1	2	<1
Nickel ppm	ASTM D5185m >15	<1	2	0
Titanium ppm	ASTM D5185m	0	0	<1
Silver ppm	ASTM D5185m	0	0	<1
Aluminum ppm	ASTM D5185m >25	0	2	2
Lead ppm	ASTM D5185m >100	0	0	<1
Copper ppm	ASTM D5185m >200	<1	<1	2
Tin ppm	ASTM D5185m >25	0	0	0
Antimony ppm	ASTM D5185m >5	---	---	---
Vanadium ppm	ASTM D5185m	<1	0	0
Cadmium ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	31	86	52
Barium ppm	ASTM D5185m	0	0	0
Molybdenum ppm	ASTM D5185m	3	13	12
Manganese ppm	ASTM D5185m	2	4	2
Magnesium ppm	ASTM D5185m	0	2	<1
Calcium ppm	ASTM D5185m	9	57	57
Phosphorus ppm	ASTM D5185m	226	277	252
Zinc ppm	ASTM D5185m	<1	22	19
Sulfur ppm	ASTM D5185m	13452	28516	19692

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >50	5	4	4
Sodium ppm	ASTM D5185m	<1	2	0
Potassium ppm	ASTM D5185m >20	0	2	4
Water %	ASTM D6304 >0.2	0.010	0.029	0.021
ppm Water	ASTM D6304 >2000	104	294.9	214.0

FLUID CLEANLINESS

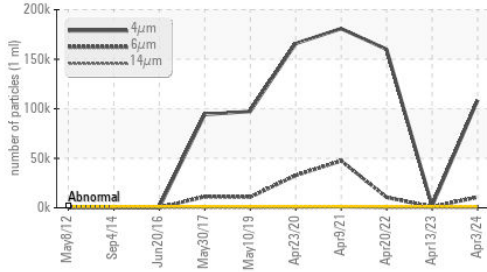
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >1300	▲ 108596	1957	▲ 159936
Particles >6µm	ASTM D7647 >320	▲ 10757	▲ 1066	▲ 10558
Particles >14µm	ASTM D7647 >80	▲ 132	▲ 181	23
Particles >21µm	ASTM D7647 >20	17	▲ 61	2
Particles >38µm	ASTM D7647 >4	1	▲ 9	0
Particles >71µm	ASTM D7647 >3	0	1	0
Oil Cleanliness	ISO 4406 (c) >17/15/13	▲ 24/21/14	▲ 18/17/15	▲ 24/21/12

FLUID DEGRADATION

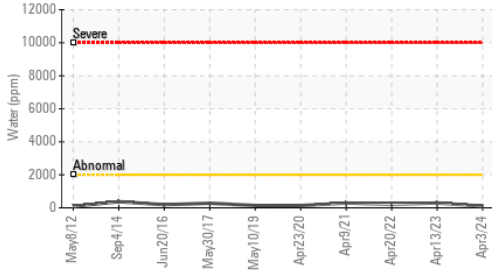
method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045	1.03	▲ 3.04	0.15

OIL ANALYSIS REPORT

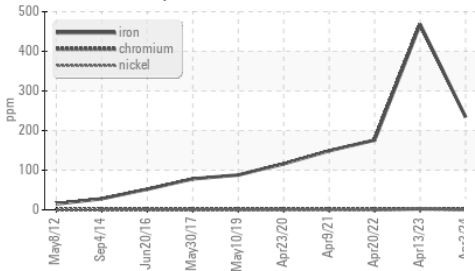
▲ Particle Trend



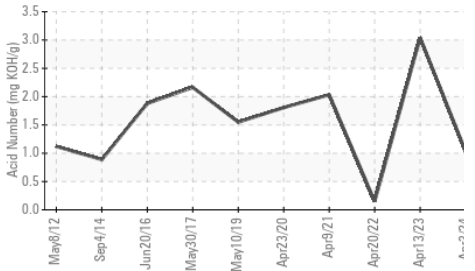
Water (KF)



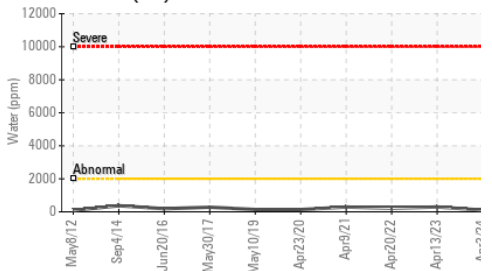
▲ Ferrous Alloys



Acid Number



Water (KF)



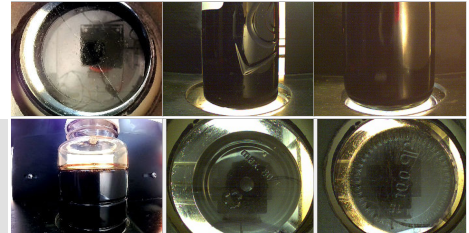
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	319	331	317

SAMPLE IMAGES	method	limit/base	current	history1	history2
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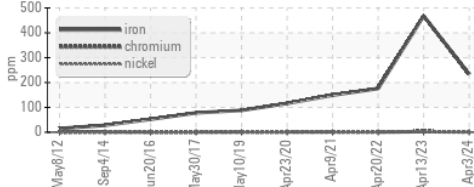
Color

Bottom

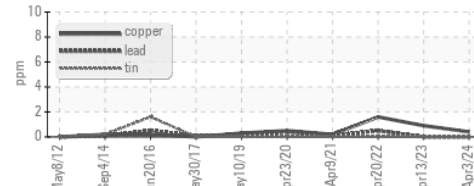


GRAPHS

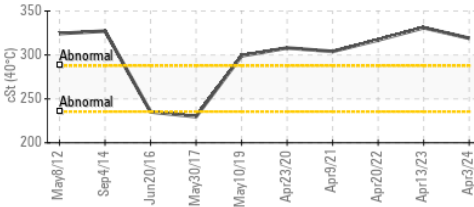
▲ Ferrous Alloys



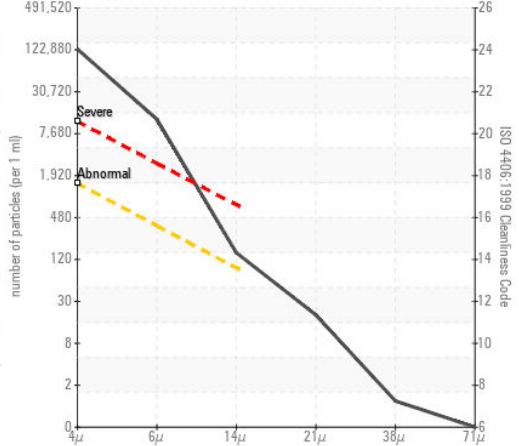
Non-ferrous Metals



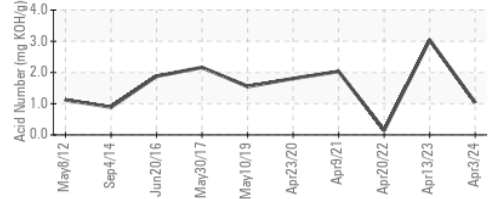
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ST43248
Lab Number : 06143057
Unique Number : 10967865
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 09 Apr 2024
Tested : 10 Apr 2024
Diagnosed : 11 Apr 2024 - Jonathan Hester

HYDRAULIC SUPPLY COMPANY
 326 SE 1ST ST
 BELLE GLADE, FL
 US 33430

Contact: ROBERT RETALEATO
 r.retaeato@hydraulic-supply.com; rrsr@hydraulic-supply.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T: (561)996-4431

F: (561)996-8531