

Machine Id
FALK VAC-PAN-9

Component
Gearbox

Fluid
CASTROL AP GEAR LUBRICANT 85W140 (--- 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

All component wear rates are normal.

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		ST44609	ST44859	ST42879
Sample Date	Client Info		03 Apr 2024	13 Apr 2023	20 Apr 2022
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	37	19	48
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	1	2
Lead	ppm	ASTM D5185m	>100	0	0	0
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		11	18	41
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	8	7
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	2	<1
Calcium	ppm	ASTM D5185m		8	33	13
Phosphorus	ppm	ASTM D5185m		210	528	523
Zinc	ppm	ASTM D5185m		4	25	26
Sulfur	ppm	ASTM D5185m		11758	23300	20930

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	6	7	21
Sodium	ppm	ASTM D5185m		<1	<1	0
Potassium	ppm	ASTM D5185m	>20	0	<1	2
Water	%	ASTM D6304	>0.2	0.005	0.009	0.004
ppm Water	ppm	ASTM D6304	>2000	58	93.6	49.5

FLUID CLEANLINESS

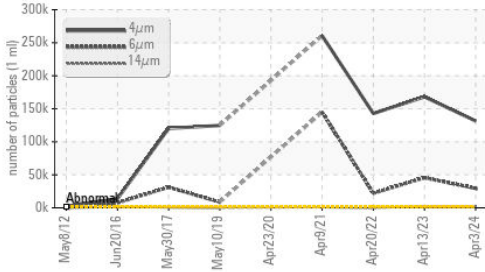
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	▲ 131515	▲ 168108	▲ 142819
Particles >6µm	ASTM D7647	>320	▲ 29372	▲ 45616	▲ 21888
Particles >14µm	ASTM D7647	>80	▲ 1894	▲ 2206	60
Particles >21µm	ASTM D7647	>20	▲ 560	▲ 550	6
Particles >38µm	ASTM D7647	>4	▲ 26	▲ 36	0
Particles >71µm	ASTM D7647	>3	1	1	0
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 24/22/18	▲ 25/23/18	▲ 24/22/13

FLUID DEGRADATION

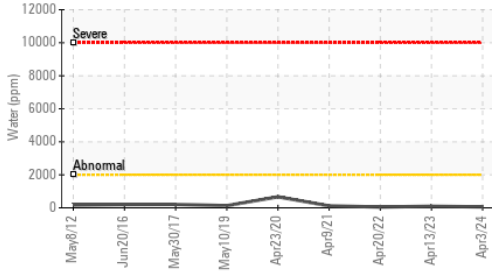
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.67	1.24	0.20

OIL ANALYSIS REPORT

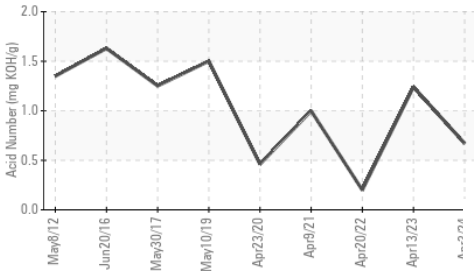
▲ Particle Trend



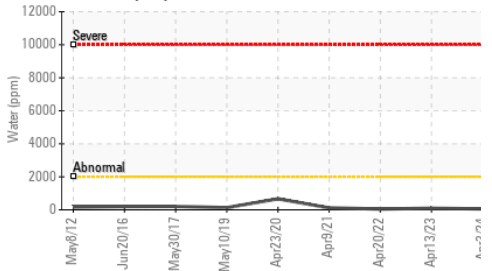
Water (KF)



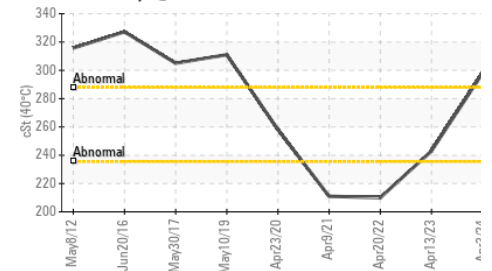
Acid Number



Water (KF)



Viscosity @ 40°C

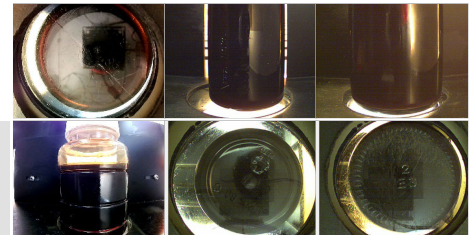


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	298	243	210

SAMPLE IMAGES	method	limit/base	current	history1	history2
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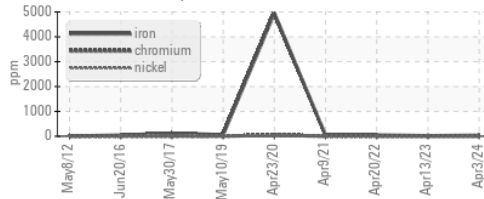
Color



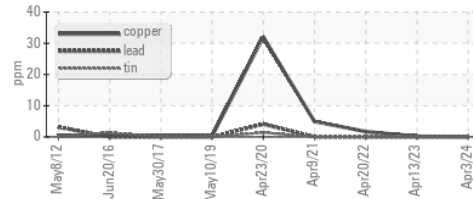
Bottom

GRAPHS

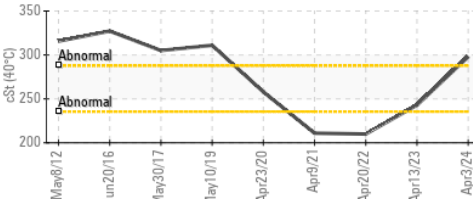
Ferrous Alloys



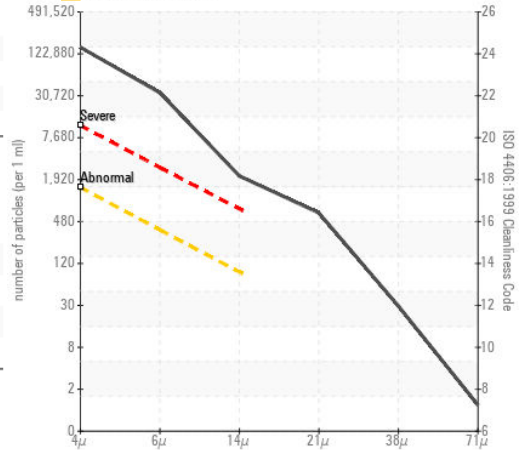
Non-ferrous Metals



Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ST44609

Lab Number : 06143072

Unique Number : 10967880

Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

Received : 09 Apr 2024

Tested : 10 Apr 2024

Diagnosed : 11 Apr 2024 - Jonathan Hester

HYDRAULIC SUPPLY COMPANY

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