

Machine Id  
**FALK VAC-PAN-1**

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**

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	<b>ST43204</b>	ST37007	ST44311
Sample Date	Client Info	<b>03 Apr 2024</b>	13 Apr 2023	20 Apr 2022
Machine Age	mths	Client Info	0	0
Oil Age	mths	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR METALS**

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	<b>115</b>	60	24
Chromium	ppm	ASTM D5185m >15	<b>1</b>	<1	0
Nickel	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m >100	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >200	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m >25	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m >5	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

**ADDITIVES**

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>4</b>	5	9
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m	<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m	<b>12</b>	20	23
Calcium	ppm	ASTM D5185m	<b>84</b>	102	128
Phosphorus	ppm	ASTM D5185m	<b>296</b>	446	480
Zinc	ppm	ASTM D5185m	<b>146</b>	270	140
Sulfur	ppm	ASTM D5185m	<b>16344</b>	19990	14028

**CONTAMINANTS**

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	<b>&lt;1</b>	<1	2
Sodium	ppm	ASTM D5185m	<b>2</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	<1	1
Water	%	ASTM D6304 >0.2	<b>0.097</b>	0.055	0.005
ppm Water	ppm	ASTM D6304 >2000	<b>970</b>	559.8	59.7

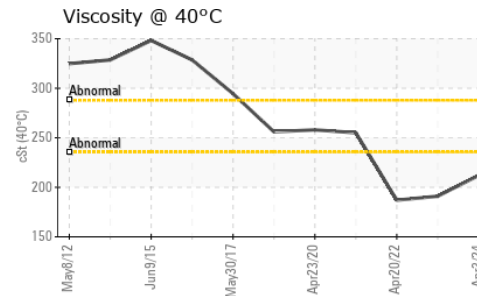
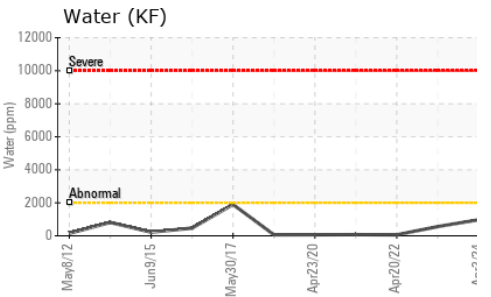
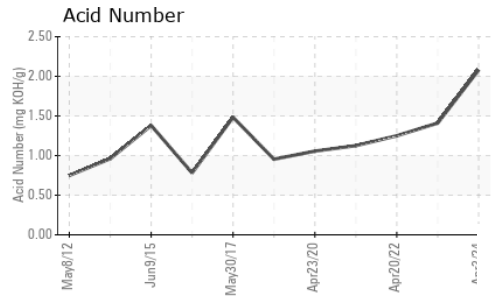
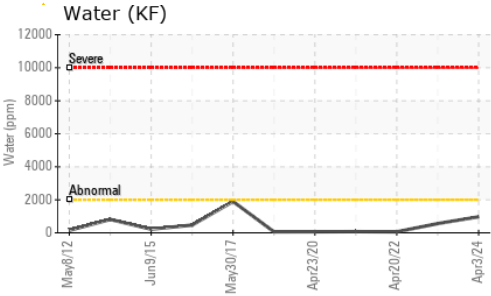
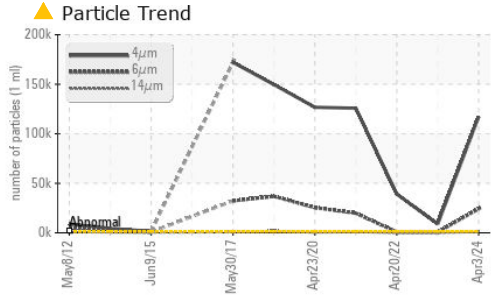
**FLUID CLEANLINESS**

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >1300	<b>▲ 117136</b>	▲ 9013	▲ 39156
Particles >6µm	ASTM D7647 >320	<b>▲ 24330</b>	▲ 776	▲ 850
Particles >14µm	ASTM D7647 >80	<b>▲ 801</b>	37	11
Particles >21µm	ASTM D7647 >20	<b>▲ 143</b>	11	2
Particles >38µm	ASTM D7647 >4	<b>2</b>	3	0
Particles >71µm	ASTM D7647 >3	<b>0</b>	1	0
Oil Cleanliness	ISO 4406 (c) >17/15/13	<b>▲ 24/22/17</b>	▲ 20/17/12	▲ 22/17/11

**FLUID DEGRADATION**

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>2.08</b>	1.41	1.25

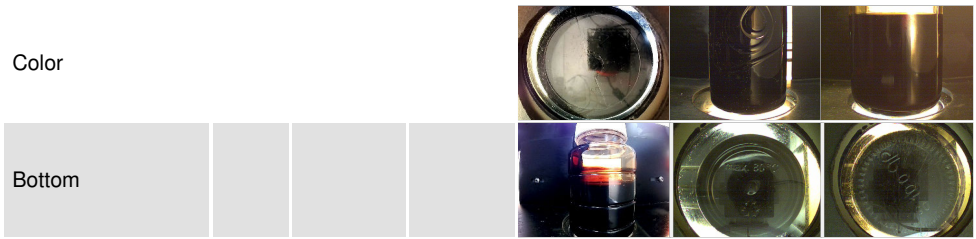
# OIL ANALYSIS REPORT



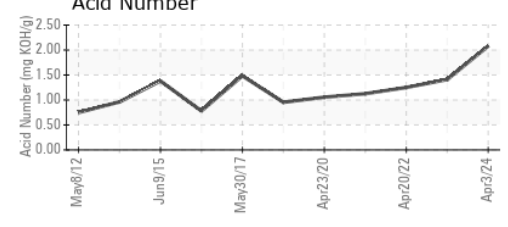
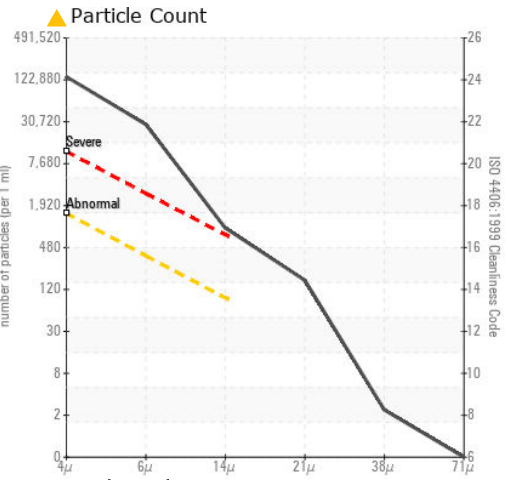
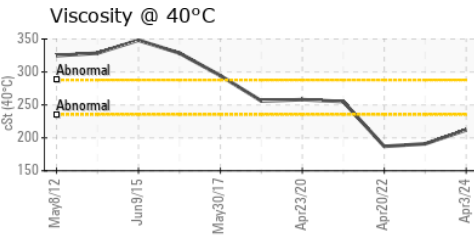
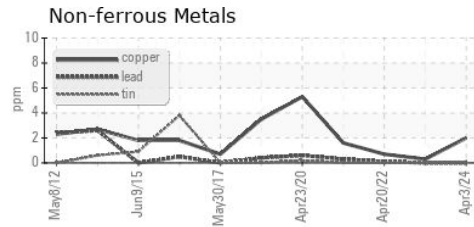
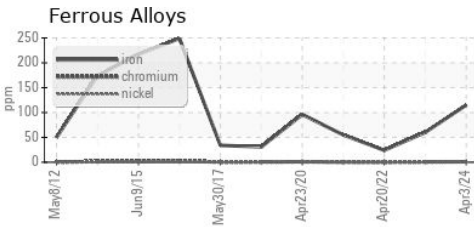
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	212	191	187

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ST43204  
**Lab Number** : 06143071  
**Unique Number** : 10967879  
**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.retaleato@hydraulic-supply.com; rrsr@hydraulic-supply.com  
 T: (561)996-4431  
 F: (561)996-8531