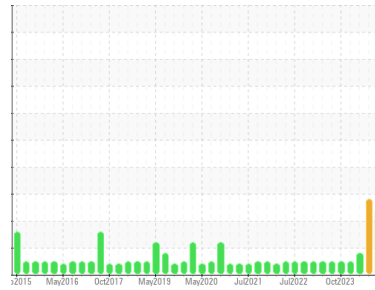




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**FES TYSSLP 6FES (S/N AB10469V)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**USPI 1009-68 SC (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you follow the water drain-off procedure for this component and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Appearance is hazy. There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

### 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>USP0013049</b>	USP0012672	USP0008267
Sample Date	Client Info	<b>20 Jun 2024</b>	23 May 2024	30 Mar 2024
Machine Age	hrs	Client Info	<b>63885</b>	0
Oil Age	hrs	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ATTENTION

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >8	<b>&lt;1</b>	5	0
Chromium	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >3	<b>0</b>	1	<1
Lead	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >8	<b>0</b>	<1	0
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Zinc	ppm	ASTM D5185m	<b>0</b>	4	0
Sulfur	ppm	ASTM D5185m 50	<b>16</b>	0	0

## CONTAMINANTS

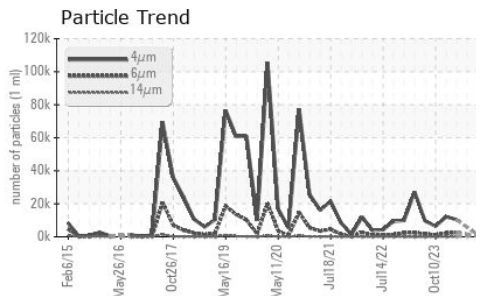
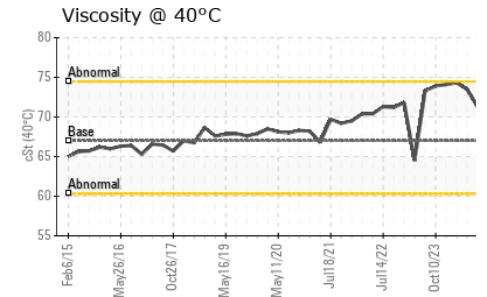
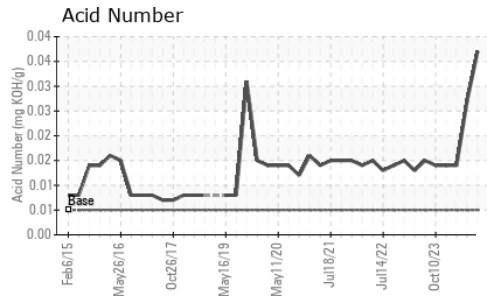
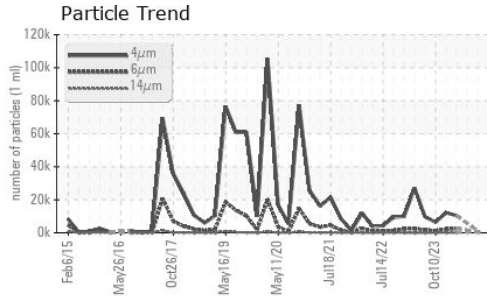
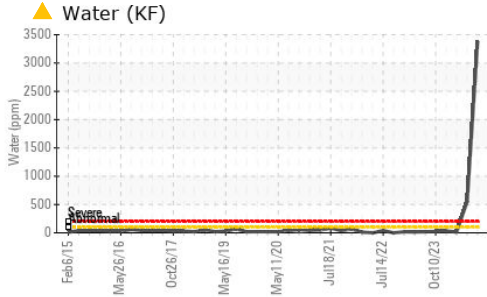
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<b>1</b>	3	1
Sodium	ppm	ASTM D5185m	<b>2</b>	2	<1
Potassium	ppm	ASTM D5185m >20	<b>1</b>	2	1
Water	%	ASTM D6304 >0.01	<b>▲ 0.338</b>	▲ 0.055	0.001
ppm Water	ppm	ASTM D6304 >100	<b>▲ 3380</b>	▲ 553	14

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>1244</b>	---	10371
Particles >6µm	ASTM D7647 >2500	<b>678</b>	---	● 2547
Particles >14µm	ASTM D7647 >320	<b>115</b>	---	101
Particles >21µm	ASTM D7647 >80	<b>39</b>	---	25
Particles >38µm	ASTM D7647 >20	<b>6</b>	---	1
Particles >71µm	ASTM D7647 >4	<b>1</b>	---	0
Oil Cleanliness	ISO 4406 (c) >--/18/15	<b>17/17/14</b>	---	● 21/19/14

## FLUID DEGRADATION

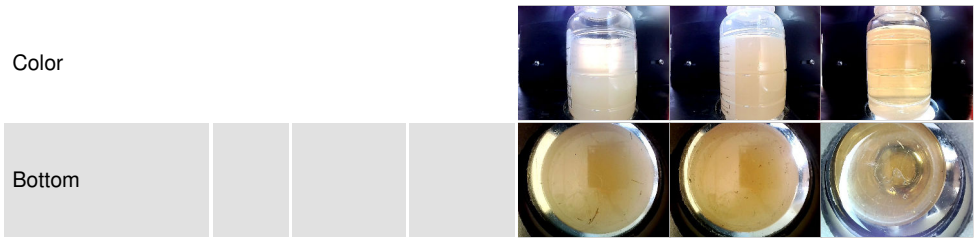
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	<b>0.037</b>	0.027	0.014



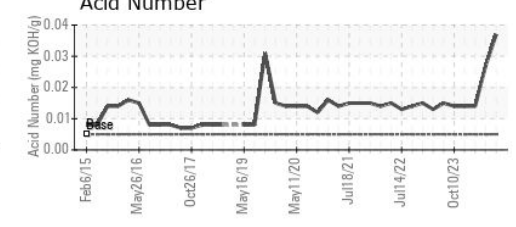
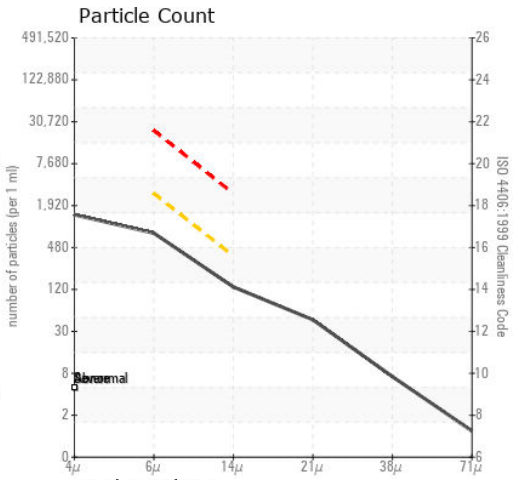
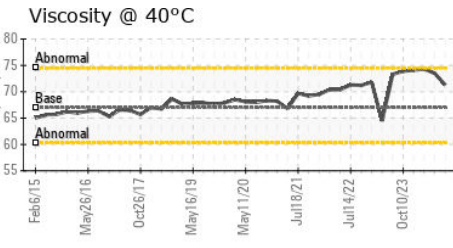
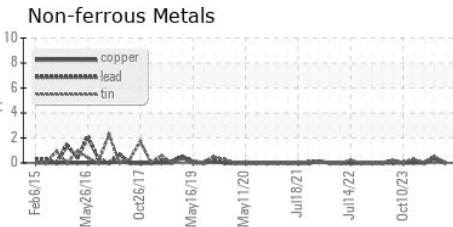
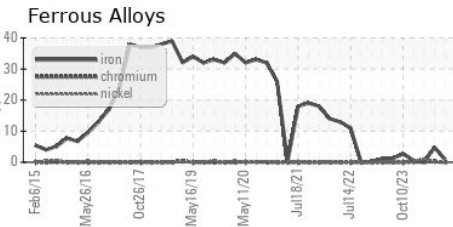
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67	71.3	73.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0013049  
**Lab Number** : 06220397  
**Unique Number** : 11098594  
**Test Package** : IND 2  
**Received** : 25 Jun 2024  
**Tested** : 01 Jul 2024  
**Diagnosed** : 01 Jul 2024 - Doug Bogart

**TYSON -STORM LAKE-USP**  
 STORM LAKE, IA  
 US  
 Contact: STEVE SWANSON

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)

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 F: (712)749-5277