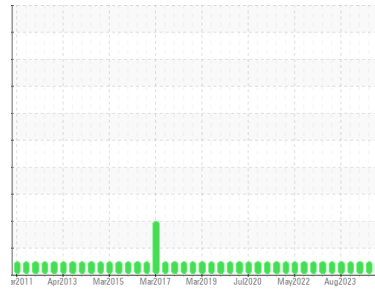




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**FES FES 3 (S/N 2512727)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**USPI 1009-68 SC (--- QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination 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>USP0012291</b>	USP0006461	USP0007060	
Sample Date	Client Info	<b>14 Jul 2024</b>	23 Apr 2024	07 Feb 2024	
Machine Age	hrs	Client Info	<b>0</b>	0	67711
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>8	<b>5</b>	5	2
Chromium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
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>	0	0
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>0</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	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	0
Calcium	ppm	ASTM D5185m		<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>0</b>	0	0
Zinc	ppm	ASTM D5185m		<b>0</b>	<1	0
Sulfur	ppm	ASTM D5185m	50	<b>86</b>	79	4

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>15	<b>3</b>	2	<1
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304	>0.01	<b>0.003</b>	0.009	0.004
ppm Water	ppm	ASTM D6304	>100	<b>30</b>	95	42

## FLUID CLEANLINESS

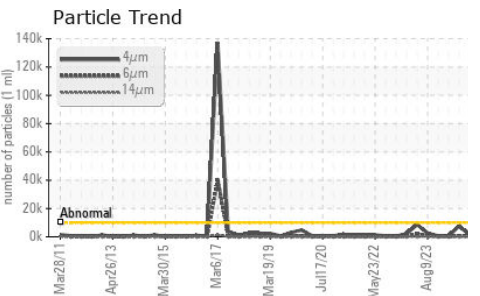
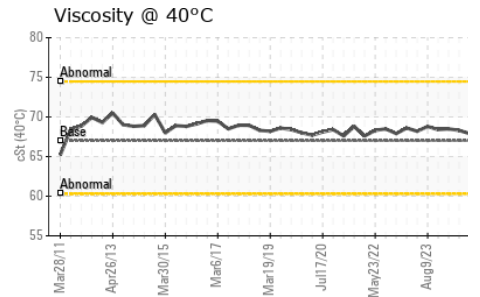
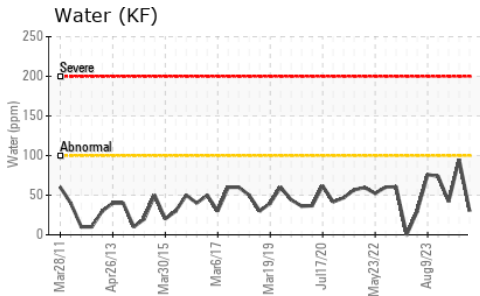
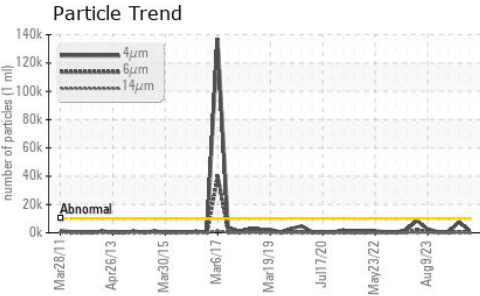
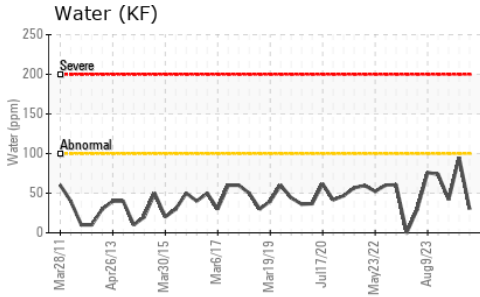
method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>10000	<b>1230</b>	7621	575
Particles >6µm	ASTM D7647	>2500	<b>262</b>	734	166
Particles >14µm	ASTM D7647	>320	<b>9</b>	14	10
Particles >21µm	ASTM D7647	>80	<b>1</b>	3	2
Particles >38µm	ASTM D7647	>20	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>17/15/10</b>	20/17/11	16/15/10

## FLUID DEGRADATION

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



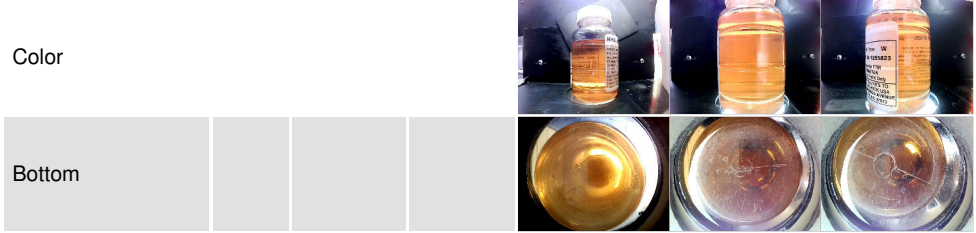
# OIL ANALYSIS REPORT



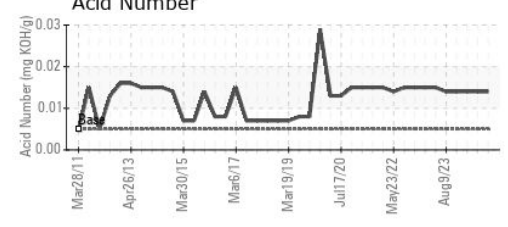
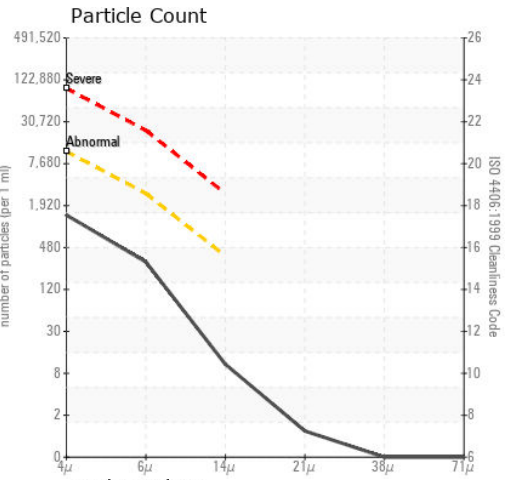
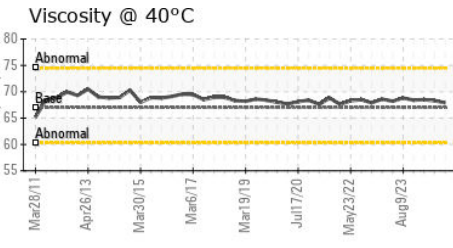
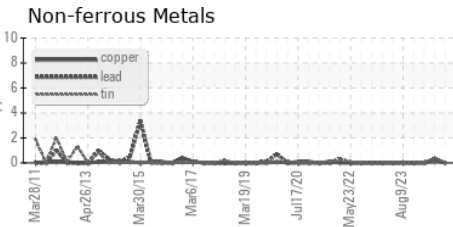
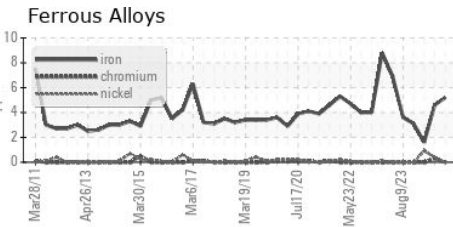
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 67	<b>67.9</b>	68.3	68.5

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0012291      **Received** : 15 Jul 2024  
**Lab Number** : **06236061**      **Tested** : 16 Jul 2024  
**Unique Number** : 11124895      **Diagnosed** : 16 Jul 2024 - Doug Bogart  
**Test Package** : IND 2

**TYSON RF-DALLAS-USB**  
 4114 MINT WAY  
 DALLAS, TX  
 US 75237  
 Contact: BRIAN WILBOURN  
 brian.wilbourn@tyson.com  
 T: (214)331-3264  
 F:

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)