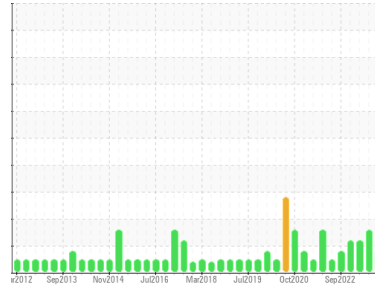




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**FES TYSDAR 28 (S/N 1611205)**

Component  
**Refrigeration Compressor**  
Fluid  
**USPI ALT-68 SC (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 6 microns in size) 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>USP0007682</b>	USP0000129	USP243459
Sample Date	Client Info			<b>21 Feb 2024</b>	01 Sep 2023	18 May 2023
Machine Age	hrs	Client Info		<b>21622</b>	19325	17471
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>ATTENTION</b>	ABNORMAL	ABNORMAL

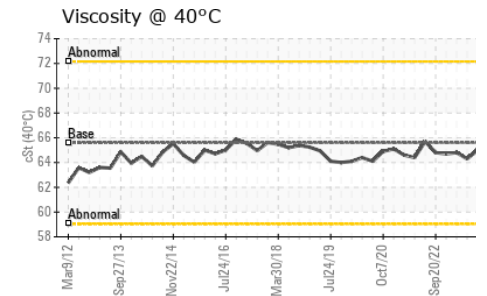
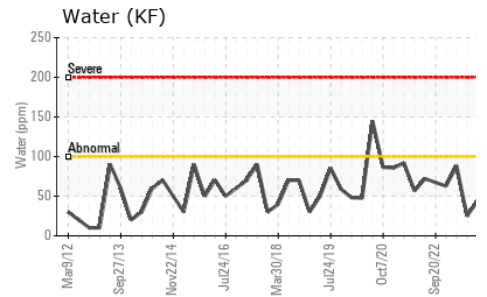
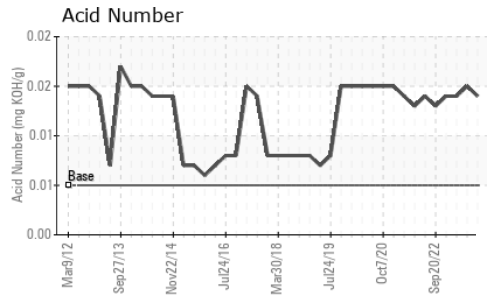
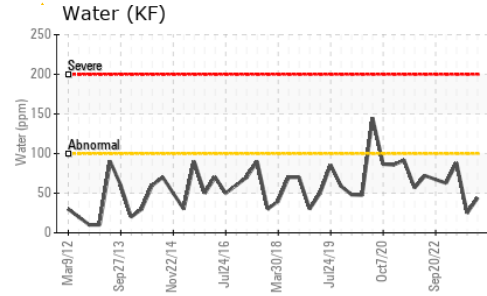
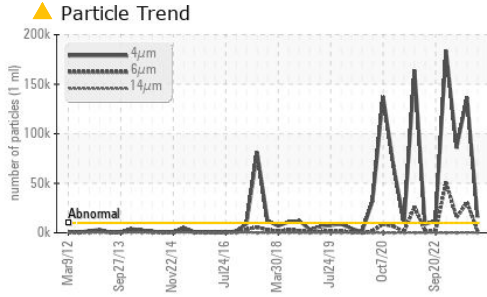
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	<b>22</b>	25	23
Chromium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>8	<b>&lt;1</b>	0	0
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	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>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	0
Calcium	ppm	ASTM D5185m		<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m	50	<b>10</b>	10	23

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	1	0
Water	%	ASTM D6304	>0.01	<b>0.004</b>	0.002	0.008
ppm Water	ppm	ASTM D6304	>100	<b>44</b>	24.9	88.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>▲ 15950</b>	▲ 136598	▲ 85639
Particles >6µm		ASTM D7647	>2500	<b>▲ 1821</b>	▲ 30598	▲ 15699
Particles >14µm		ASTM D7647	>320	<b>▲ 11</b>	▲ 376	60
Particles >21µm		ASTM D7647	>80	<b>▲ 2</b>	26	5
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>▲ 21/18/11</b>	▲ 24/22/16	▲ 24/21/13

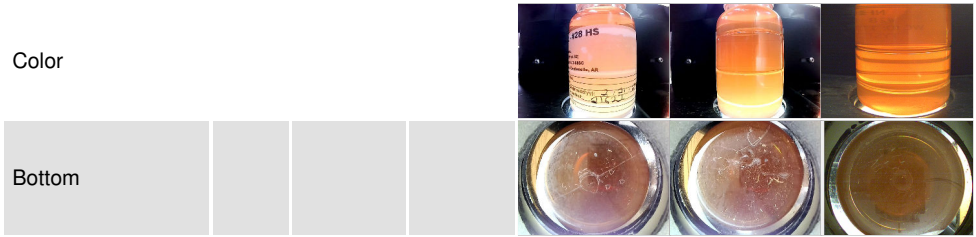
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	<b>0.014</b>	0.015	0.014



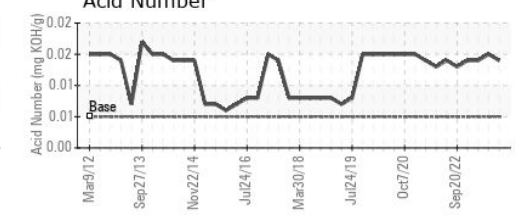
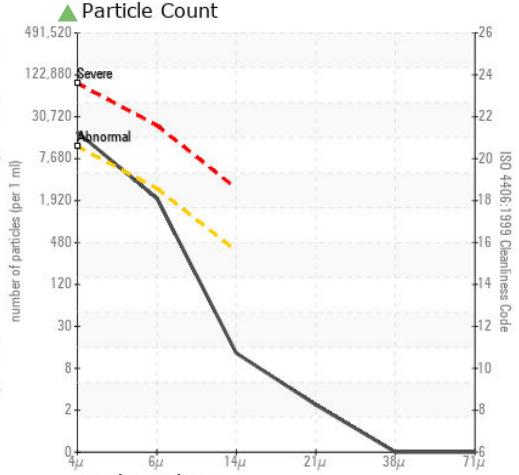
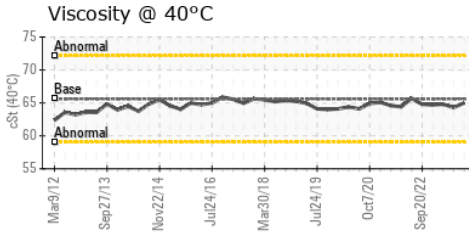
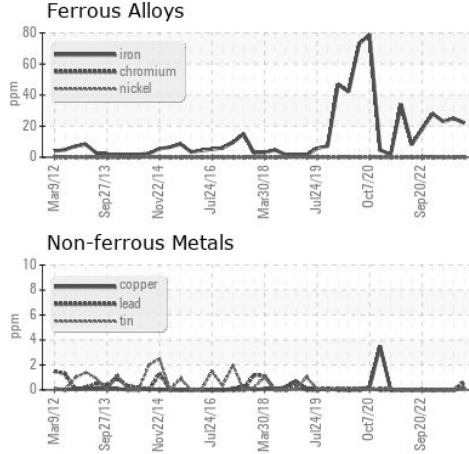
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	65.6	65.0	64.3	64.8

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



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : USP0007682  
 Lab Number : 06099212  
 Unique Number : 10897442  
 Test Package : IND 2

Received : 23 Feb 2024  
 Tested : 26 Feb 2024  
 Diagnosed : 26 Feb 2024 - Doug Bogart

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)

Contact: SERVICE MANAGER

T:  
F: