

# **OIL ANALYSIS REPORT**

#### Sample Rating Trend

### NORMAL

## FES TYSSEG 5 FES (S/N R1296) Component

**Refrigeration Compressor** USPI ALT-68 SC (--- QTS)

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

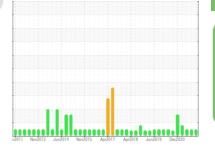
All component wear rates are normal.

#### 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.





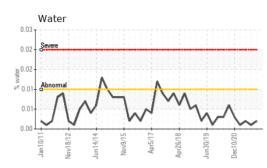
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0000391	USP249946	USP235383
Sample Date		Client Info		24 Aug 2023	30 May 2023	13 Apr 2022
Machine Age	hrs	Client Info		8147	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	0	0	0
Chromium	ppm	ASTM D5185m	>2	0	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m		<1	0	<1
Lead	ppm	ASTM D5185m	>2	0	0	0
Copper	ppm	ASTM D5185m		0	0	0
Tin	ppm	ASTM D5185m	>4	0	0	0
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
	PPIII		12.002.00			
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		0	1	0
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m	50	0	33	15
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	<1	1
Sodium	ppm	ASTM D5185m		0	<1	0
Potassium	ppm	ASTM D5185m		<1	<1	0
Water	%	ASTM D6304	>0.01	0.002	0.001	0.002
ppm Water	ppm	ASTM D6304	>100	19.7	9.9	22.0
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	3600	559	845
Particles >6µm		ASTM D7647	>2500	1020	203	212
Particles >14µm		ASTM D7647	>320	45	15	12
Particles >21µm		ASTM D7647	>80	7	1	3
Particles >38µm		ASTM D7647	>20	0	0	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/17/13	16/15/11	17/15/11
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.013	0.015	0.014
:03:10) Rev: 1						

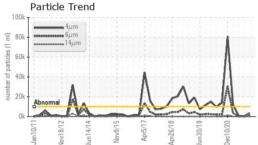
Acid Number (AN) Report Id: TYSSEG01 [WUSCAR] 05938332 (Generated: 08/31/2023 19:03:10) Rev: 1

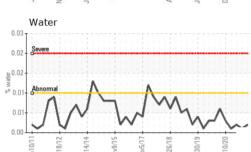
Contact/Location: ALEX DELACRUZ - TYSSEG01



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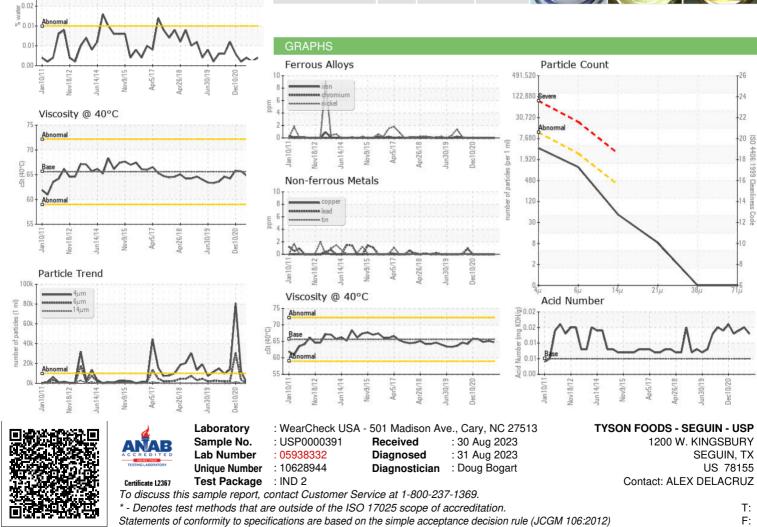




VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.6	64.7	65.1	64.8
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						NH3 45 455 10 Discort 2007 1955EG

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Contact/Location: ALEX DELACRUZ - TYSSEG01