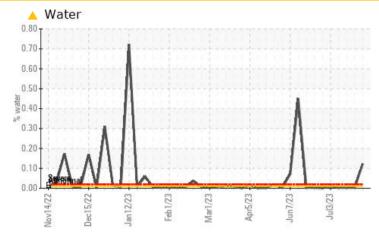


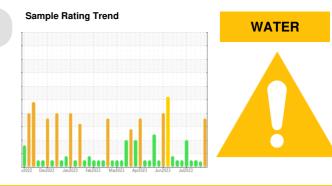
PROBLEM SUMMARY

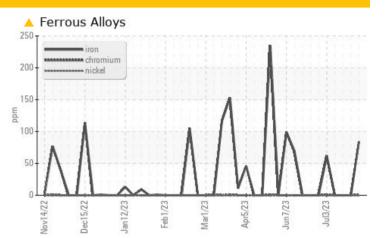
Area [BARREL 12 BEFORE] Machine Id TYSLOG RECYCLED NH3 Component

Refrigeration Compressor Fluid USPI 1009-68 SC (--- GAL)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

This is a baseline read-out on the submitted sample. We were unable to perform a particle count due to a high concentration of particles present in this sample. BARREL 12 BEFORE

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>8	<u> </u>	0	0
Water	%	ASTM D6304	>0.01	6 0.123	0.003	0.003
ppm Water	ppm	ASTM D6304	>100	<u> </u>	36.0	34.2
Debris	scalar	*Visual	NONE	🔺 MODER	NONE	NONE
Appearance	scalar	*Visual	NORML	🔺 HAZY	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	6.2%	NEG	NEG

Customer Id: TYSLOG Sample No.: USP248378 Lab Number: 05928366 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS							
Action	Status	Date	Done By				
Alert			?				

Description

We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS



19 Jul 2023 Diag: Doug Bogart

This is a baseline read-out on the submitted sample. BARREL 1 ALREADY FILTERED There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The oil viscosity is lower than normal. Confirmed. The AN level is acceptable for this fluid.



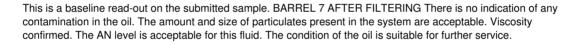
view report

18 Jul 2023 Diag: Doug Bogart



This is a baseline read-out on the submitted sample. BARREL 4 AFTER 2ND FILTERING There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. Viscosity confirmed. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

12 Jul 2023 Diag: Doug Bogart







Report Id: TYSLOG [WUSCAR] 05928366 (Generated: 08/21/2023 10:11:34) Rev: 1



OIL ANALYSIS REPORT

Sample Rating Trend

WATER

Area [BARREL 12 BEFORE] Machine Id TYSLOG RECYCLED NH3 Component

Refrigeration Compressor Fluid USPI 1009-68 SC (--- GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample. We were unable to perform a particle count due to a high concentration of particles present in this sample. BARREL 12 BEFORE

🔺 Wear

The iron level is abnormal.

Contamination

Appearance is hazy. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

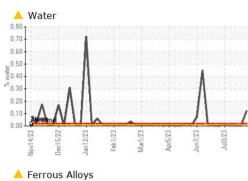
The AN level is acceptable for this fluid.

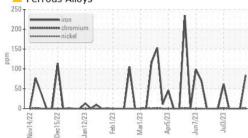
Sample Date Client Info 19 Aug 2023 19 Jul 2023 18 Jul 20 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A Sample Status Imit Dists ABNORMAL ATTENTION NORMAL WEAR METALS method Imit/base current history1 history1 Iron ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 0 Cadmium ppm ASTM D5185m >2 0 <th>SAMPLE INFORM</th> <th>NATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	NATION	method	limit/base	current	history1	history2	
Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info N/A N/A N/A N/A Sample Status Image Image Image ABNORMAL ATTENTION NORMAL WEAR METALS method Image current history1 history1 Iron ppm ASTM 05185m >8 A 84 0 0 Nickel ppm ASTM 05185m >2 0 0 0 Silver ppm ASTM 05185m >2 0 0 0 Aduminum ppm ASTM 05185m >2 0 0 0 0 Aduminum ppm ASTM 05185m >2 0	Sample Number		Client Info		USP248378	USP249297	USP248388	
Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Imit/base current history1 history1 VEAR METALS method limit/base current history1 history1 Chromium ppm ASTM D5185m >2 <1	Sample Date		Client Info		19 Aug 2023	19 Jul 2023	18 Jul 2023	
Oil Changed Client Info N/A N/A N/A N/A Sample Status method limit/base current history1 history1 WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >8 & 84 0 0 Nickel ppm ASTM D5185m >2 <1	Machine Age	hrs	Client Info		0	0	0	
Sample Status method limit/base current history1 history1 Iron ppm ASTM D5185m >8 84 0 0 Nickel ppm ASTM D5185m >2 <1	Oil Age	hrs	Client Info		0	0	0	
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >8 & 84 0 0 Chromium ppm ASTM D5185m >2 <1	Oil Changed		Client Info		N/A	N/A	N/A	
Iron ppm ASTM D5185m >8 ▲ 84 O O Chromium ppm ASTM D5185m 0 0 0 Nickel ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Lead ppm ASTM D5185m >3 0 0 0 Copper ppm ASTM D5185m >4 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 histor Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Maganesium <td>Sample Status</td> <td></td> <td></td> <td></td> <th>ABNORMAL</th> <td>ATTENTION</td> <td>NORMAL</td>	Sample Status				ABNORMAL	ATTENTION	NORMAL	
Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >2 0 0 0 Cadmium ppm ASTM D5185m >4 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 ADDITIVES method limit/base current history1 histor Boron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 1 1	WEAR METALS		method	limit/base	current	history1	history2	
Nickel ppm ASTM D5185m 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Magnasium ppm ASTM D5185m 0 0 0 0 Galcium ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>8	<u> </u>	0	0	
Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >2 0 0 <1	Chromium	ppm	ASTM D5185m	>2	<1	0	0	
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m >2 0 0 <1	Nickel		ASTM D5185m		0	0	0	
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >3 0 0 <1	Titanium		ASTM D5185m		0	0	0	
Aluminum ppm ASTM D5185m >3 0 0 <1 Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >8 0 0 0 Vanadium ppm ASTM D5185m >4 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 histor Boron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Maganese ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m <1			ASTM D5185m	>2	0	0		
Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >8 0 0 0 Tin ppm ASTM D5185m >4 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 histor Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Magnese ppm ASTM D5185m <1				>3		0	<1	
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Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m <1								
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2	
Nolybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0	0	0	
Manganese ppm ASTM D5185m <1 0 0 Magnesium ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m		0	0	0	
Magnesium ppm ASTM D5185m <1 0 0 Calcium ppm ASTM D5185m 1 1 0 0 Phosphorus ppm ASTM D5185m 0 <1	Molybdenum	ppm	ASTM D5185m		0	0	0	
Calcium ppm ASTM D5185m 1 1 0 Phosphorus ppm ASTM D5185m 0 <1 0 Zinc ppm ASTM D5185m 0 <1 0 Zinc ppm ASTM D5185m 0 <1 0 Sulfur ppm ASTM D5185m 50 0 11 0 CONTAMINANTS method limit/base current history1 histor Solium ppm ASTM D5185m >15 <1 <1 <1 0 Potassium ppm ASTM D5185m >20 0 0 <1 0 Water % ASTM D6304 >0.01 0.123 0.003 0.003 ppm Water ppm ASTM D7647 2171 4608 Particles >4µm ASTM D7647 902 1199 Particles >6µm ASTM D7647 >2500 902 1199 Particles >1µm ASTM D7647 >2500 902 1199 Particles >21µm	Manganese	ppm	ASTM D5185m		<1	0	0	
Phosphorus ppm ASTM D5185m 0 <1 0 Zinc ppm ASTM D5185m 3 0 0 Sulfur ppm ASTM D5185m 50 0 111 0 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m >15 <1	Magnesium	ppm	ASTM D5185m		<1	0	0	
Zinc ppm ASTM D5185m 3 0 0 Sulfur ppm ASTM D5185m 50 0 11 0 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m >15 <1	Calcium	ppm	ASTM D5185m		1	1	0	
Sulfur ppm ASTM D5185m 50 0 11 0 CONTAMINANTS method limit/base current history1 history1 histor Silicon ppm ASTM D5185m >15 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Phosphorus	ppm	ASTM D5185m		0	<1	0	
CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >15 <1	Zinc	ppm	ASTM D5185m		3	0	0	
Silicon ppm ASTM D5185m >15 <1 <1 <1 <1 Sodium ppm ASTM D5185m <20 0 0 <1 0 Potassium ppm ASTM D5185m >20 0 0 <1 0 Water % ASTM D6304 >0.01 ▲ 0.123 0.003 0.003 ppm Water ppm ASTM D6304 >100 ▲ 1230 36.0 34.2 FLUID CLEANLINESS method limit/base current history1 histor Particles >4µm ASTM D7647 2171 4608 Particles >6µm ASTM D7647 >2500 902 1199 Particles >6µm ASTM D7647 >320 39 29 Particles >14µm ASTM D7647 >80 5 2 Particles >38µm ASTM D7647 >20 0 0 Particles >71µm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15	Sulfur	ppm	ASTM D5185m	50	0	11	0	
Sodium ppm ASTM D5185m <1 <1 0 Potassium ppm ASTM D5185m >20 0 0 <1	CONTAMINANTS	\$	method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 0 0 <1 Water % ASTM D6304 >0.01 ▲ 0.123 0.003 0.003 ppm Water ppm ASTM D6304 >100 ▲ 1230 36.0 34.2 FLUID CLEANLINESS method limit/base current history1 histor Particles >4µm ASTM D7647 2171 4608 Particles >6µm ASTM D7647 >2500 902 1199 Particles >6µm ASTM D7647 >320 39 29 Particles >14µm ASTM D7647 >80 5 2 Particles >21µm ASTM D7647 >20 0 0 Particles >38µm ASTM D7647 >20 0 0 Particles >71µm ASTM D7647 >4 0 0 OIl Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/17	Silicon	ppm	ASTM D5185m	>15	<1	<1	<1	
Water % ASTM D6304 >0.01 ▲ 0.123 0.003 0.003 ppm Water ppm ASTM D6304 >100 ▲ 1230 36.0 34.2 FLUID CLEANLINESS method limit/base current history1 histor Particles >4µm ASTM D7647 2171 4608 Particles >6µm ASTM D7647 >2500 902 1199 Particles >6µm ASTM D7647 >320 39 29 Particles >14µm ASTM D7647 >80 5 2 Particles >21µm ASTM D7647 >20 0 0 Particles >38µm ASTM D7647 >4 0 0 Particles >71µm ASTM D7647 >4 18/17/12 19/17/	Sodium	ppm	ASTM D5185m		<1	<1	0	
ppm Water ppm ASTM D6304 >100 ▲ 1230 36.0 34.2 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm ASTM D7647 2171 4608 Particles >6µm ASTM D7647 >2500 902 1199 Particles >14µm ASTM D7647 >320 39 29 Particles >21µm ASTM D7647 >80 5 2 Particles >38µm ASTM D7647 >20 0 0 Particles >71µm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/17	Potassium	ppm	ASTM D5185m	>20	0	0	<1	
FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 2171 4608 Particles >6μm ASTM D7647 >2500 902 1199 Particles >14μm ASTM D7647 >320 39 29 Particles >21μm ASTM D7647 >80 5 2 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0 Oli Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/	Water	%	ASTM D6304	>0.01	<u> </u>	0.003	0.003	
Particles >4μm ASTM D7647 2171 4608 Particles >6μm ASTM D7647 >2500 902 1199 Particles >14μm ASTM D7647 >320 39 29 Particles >14μm ASTM D7647 >80 5 2 Particles >21μm ASTM D7647 >20 0 0 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/	ppm Water	ppm	ASTM D6304	>100	1230	36.0	34.2	
Particles >6µm ASTM D7647 >2500 902 1199 Particles >14µm ASTM D7647 >320 39 29 Particles >21µm ASTM D7647 >80 5 2 Particles >38µm ASTM D7647 >20 0 0 Particles >71µm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2	
Particles >14µm ASTM D7647 >320 39 29 Particles >21µm ASTM D7647 >80 5 2 Particles >38µm ASTM D7647 >20 0 0 Particles >38µm ASTM D7647 >20 0 0 Particles >71µm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/								
Particles >21μm ASTM D7647 >80 5 2 Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/	Particles >6µm		ASTM D7647	>2500		902	1199	
Particles >38μm ASTM D7647 >20 0 0 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/12	Particles >14µm		ASTM D7647	>320		39		
Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/	Particles >21µm		ASTM D7647	>80		5	2	
Oil Cleanliness ISO 4406 (c) >/18/15 18/17/12 19/17/	Particles >38µm		ASTM D7647	>20		0	0	
	Particles >71µm		ASTM D7647	>4		0	0	
FLUID DEGRADATION method limit/base current history1 histo	Oil Cleanliness		ISO 4406 (c)	>/18/15		18/17/12	19/17/12	
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g ASTM D974 0.005 0.015 0.015 0.014	Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.015	0.015	0.014	

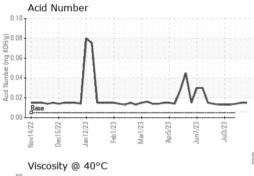
Contact/Location: RICK DUVAL - TYSLOG



OIL ANALYSIS REPORT







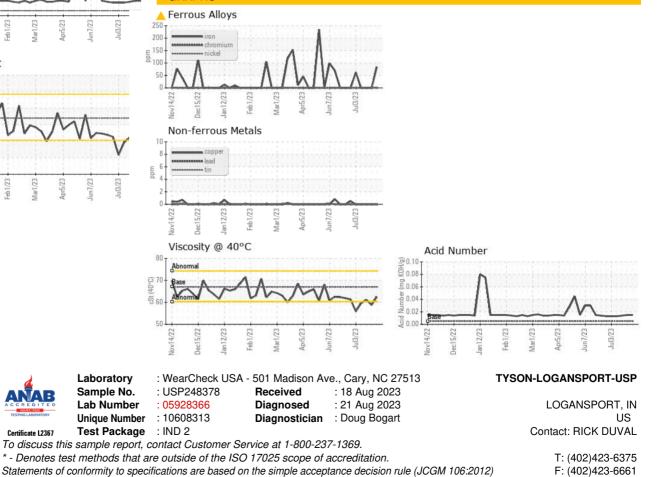
	ormal		1				
5- Abn		P	41	h	N	1	
0 - Abn	ormaN	V		- /		vv	1
5							V
0							

VISUAL		method	limit/base	current	history1	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	A MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	🔺 HAZY	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	6.2%	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67	62.5	▲ 58.8	61.1
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color				-0.		
D				(CA)		

the the

Bottom





Certificate L2367

Contact/Location: RICK DUVAL - TYSLOG

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