

## **FUEL REPORT**

#### Sample Rating Trend

### NORMAL



Tank Jet Fuel Fluid F24 FUEL (300 GAL)

#### DIAGNOSIS

#### Recommendation

All laboratory tests indicate that this sample meets specifications for Jet-A fuel.

#### Wear

All metal levels are normal indicating no corrosion in the system.

#### Contamination

The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. There is no indication of any contamination in the fuel. The amount and size of particulates present in the system are acceptable.

#### Fluid Condition

The AN level is acceptable for this fluid. Sulfur value derived by ASTM D5453 method for ULSD validation.

				Sep 2022		
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0710457		
Sample Date		Client Info		27 Sep 2022		
Machine Age	mls	Client Info		0		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		0.807		
Fuel Color	text	*Visual Screen		Clear		
ASTM Color	scalar	*ASTM D1500		L0.5		
Visc @ 40°C	cSt	ASTM D445		1.39		
Pensky-Martens Flash Point	°C	*PMCC Calculated		50		
Cloud Point	°C	ASTM D5771		-48		
Pour Point	°C	ASTM D5950		-48		
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		606		
Sulfur (UVF)	ppm	ASTM D5453		565		
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		148		
5% Distillation Point	°C	ASTM D86		170		
10% Distill Point	°C	ASTM D86		176		
15% Distillation Point	°C	ASTM D86		180		
20% Distill Point	°C	ASTM D86		185		
30% Distill Point	°C	ASTM D86		193		
40% Distill Point	°C	ASTM D86		201		
50% Distill Point	°C	ASTM D86		209		
60% Distill Point	°C	ASTM D86		217		
70% Distill Point	°C	ASTM D86		226		
80% Distill Point	°C	ASTM D86		237		
85% Distillation Point	°C	ASTM D86		343		
90% Distill Point	°C	ASTM D86		250		
95% Distillation Point	°C	ASTM D86		261		
Final Boiling Point	°C	ASTM D86		274		
Distillation Residue	%	ASTM D86		1.2		
Distillation Loss	%	ASTM D86		0.3		
IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
API Gravity		ASTM D7777		43.8		
Cetane Index		ASTM D4737	<40.0	46.3		



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Particle Count 491.520 T T <sup>26</sup>	CONTAMINANTS		method	limit/base	current
122,880 Severe -24	Silicon	ppm	ASTM D5185m	<1.0	0
22 22 22 22 7 7,680 Abnormal 20 48	Sodium	ppm	ASTM D5185m	<0.1	0
1     1,920     168     169     168     199     168     169     168     169     168     169     168     169     169     161     112     14     116     121     112     121     121     120	Potassium	ppm	ASTM D5185m	<0.1	<1
-16 ge	Water	%	ASTM D6304	<0.05	0.004
	ppm Water	ppm	ASTM D6304	<500	42.7
L 1,000 Abnormal 20 400 118 1990 118 19	% Gasoline	%	*In-House	<0.50	0.0
2	% Biodiesel	%	*In-House	<20.0	0.0
$0 \frac{1}{4\mu} \frac{1}{6\mu} \frac{1}{14\mu} \frac{1}{21\mu} \frac{1}{38\mu} \frac{1}{71\mu} 6$	FLUID CLEANLIN	IESS	method	limit/base	current
Water	Particles >4µm		ASTM D7647		1273
1.20 Severe	Particles >6µm		ASTM D7647		138
0.96 - 7	Particles >14µm		ASTM D7647		16
<u>a</u> 0.72 -	Particles >21µm		ASTM D7647		5
≥ š0.48	Particles >38µm		ASTM D7647		0
0.24	Particles >71µm		ASTM D7647		0
Abnormal	Oil Cleanliness		ISO 4406 (c)		17/14/11
0.0 Sep21/22 -	HEAVY METALS		method	limit/base	current
Sep 2	Aluminum	nom	ASTM D5185m	<0.1	0
Viscosity @ 40°C	Nickel	ppm	ASTM D5185m		0
120 Abnormal	Lead	ppm	ASTM D5185m	<0.1	0
100 Abnormal	Vanadium	ppm	ASTM D5185m		0
80 -		ppm	ASTM D5185m	<0.1	0
(1.0) (2.0) (2.0) (2.0) (2.0) (3.0) (3.0)	Iron Calcium	ppm	ASTM D5185m		0
<sup>63</sup> 40 -	Magnesium	ppm	ASTM D5185m	<0.1	0
20-	Phosphorus	ppm ppm	ASTM D5185m	<0.1	2
ol	Zinc	ppm	ASTM D5185m	<0.1	0
Sep21/22 Sep21/22					U
0 0 0	SAMPLE IMAGES	6	method	limit/base	current
Particle Trend	Color				E
0 a 2k agunu 0k	Bottom				
Sep 21/122					
Fuel Distillation Curve					
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**BAE SYSTEMS** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0710457 Received : 29 Sep 2022 1100 BAIRS RD Lab Number : 05654426 Diagnosed : 05 Oct 2022 YORK, PA Unique Number : 10153978 Diagnostician : Doug Bogart US 17408 Test Package : DF-3 (Additional Tests: API, CC Flash, Cetane, CldPt, Color-ASTM, Fuel, GC-PercFuel, ICP, KF, KV40, Contact: DOUG RUSSO Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. doug.russo@baesystems.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (717)524-0737 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (717)225-8311

Contact/Location: DOUG RUSSO - BAEYOR

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