

## **FUEL REPORT**

Sample Rating Trend

### NORMAL

Area (C-GMXB) [C-GMXB] 11624 **Right Jet Fuel** JET FUEL Type A (--- GAL)

#### DIAGNOSIS

#### Recommendation

Laboratory test indicate that this fuel is suitable for use and meets all test requirements. Resample at the next service interval to monitor.

#### Contamination

There is no bacteria or fungus (yeast and/or mold) present in the sample. The water content is negligible. The fuel phase was tested for microbes, as there was no separate water phase present in the sample. The MicrobMonitor2 test kit was used to test for microbiological contamination in the sample. There is no indication of any contamination in the jet fuel.

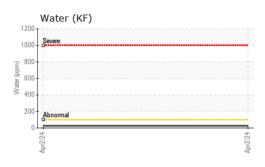
#### Fluid Condition

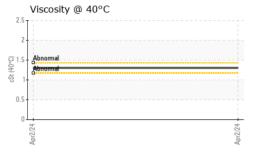
All laboratory tests indicate that this sample appears to be Jet Fuel Type A.

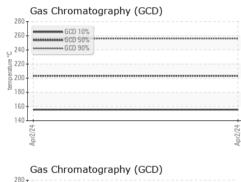
SAMPLE INFORMATION       method       imit/base       current       history1       history2         Sample Date       Client Info       WC0899305           Machine Age       hrs       Client Info       0           Machine Age       hrs       Client Info       0           Oil Age       hrs       Client Info       0           Oil Changed       Client Info       0            Sample Status       Imit/base       current       history1           PHYSICAL PROPERTIES       method       Imit/base       current       history1          Suge 40°C       cSt       ASTM D1278/m       <8.0       1.3           Sulfur       ppm       ASTM D1278/m       <8.0       1.3           Sulfur       ppm       ASTM D287             Sv Distillation Point       °C       ASTM D2887       153           Sv Distilla					Apr2024		
Sample Number       Client Into       WC0899305           Sample Date       Client Into       02 Apr 2024           Machine Age       hrs       Client Into       0           Oil Age       hrs       Client Into       0           Sample Status       Client Into       N/A           PHYSICAL PROPERTIES       method       N/A           Specific Gravity       ASTM D128*       0.802           Fuel Color       text       Visual Screen*       Clear           Pour Point       °C       ASTM D129*       45       -57           Sulfur       ppm       ASTM D285/m       -300       437           Sulfur       ppm       ASTM D285/m       -300       437           Sulfur       ppm       ASTM D285/m       153            Sulfur       ppm       ASTM D283/m       169	SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Date       Client Info       02 Apr 2024           Machine Age       hrs       Client Info       0           Oil Age       hrs       Client Info       0           Oil Changed       Client Info       N/A           Sample Status       Imit/base       current       history1       history2         Specific Gravity       ASTM D128*       0.802           Fuel Color       text       Visual Screent       Clear           Pour Point       °C       ASTM D128*       0.802           SULFUR CONTENT       method       limit/base       current       history1       history2         Sulfur       ppm       ASTM D288*7       153           DISTILLATION       method       limit/base       current       history1       history2         Initial Boiling Point       °C       ASTM D288*7       153           Distillation Point       °C       ASTM D288*7       188 </td <td>Sample Number</td> <td></td> <td></td> <td></td> <th></th> <td></td> <td></td>	Sample Number						
Machine Age       hrs       Client Info       0           Oil Age       hrs       Client Info       N/A           Sample Status       I       NORMAL           PHYSICAL PROPERTIES       mit/base       current       history1       history2         Specific Gravity       ASTM D128*       0.802           Visc @ 40°C       cst       XSIM D1727%           Visc @ 40°C       cst       XSIM D1777%           Visc @ 40°C       cst       XSIM D1727%            Visc @ 40°C       cst       XSIM D285*       0.802            Sulfur       ppm       ASTM D285*       0.802            Sulfur       ppm       ASTM D285*       current       history1       history2         Sulfur       ppm       ASTM D285*       153           Sulfur       c       ASTM D285*       169							
Oil Age       hrs       Client Info       0           Oil Changed       Client Info       N/A           Sample Status       Imit/base       current       history1       history2         PhySICAL PROPERTIES       method       imit/base       current       history1       history2         Specific Gravity       ASTM D1298'       0.802           Puel Color       text       Visual Screent       Clear           Yes @ 40°C       CSI       ASTM D773/m       e.0       1.3           Pour Point       °C       ASTM D773/m       e.0       1.3           SULFUR CONTENT       method       imit/base       current       history1       history2         Sulfur       ppm       ASTM D2887'       153           DISTILLATION       method       imit/base       current       history1       history2         No% Distill Point       °C       ASTM D2887'       169           No Kastm D2887'       182 </td <td></td> <td>hrs</td> <td></td> <td></td> <th>•</th> <td></td> <td></td>		hrs			•		
Oil Changed       Client Info       N/A           Sample Status       Imil/base       Current       Inistory1       Inistory2         PHYSICAL PROPERTIES       method       Imil/base       current       Inistory1       Inistory2         Specific Gravity       ASTM D1298'       0.802            Fuel Color       text       Visual Screen'       Clear           Fuel Color       text       Visual Screen'       Clear           Pour Point       °C       ASTM D1297'       -45       -57           SULFUR CONTENT       method       imit/base       current       history1       history2         Sulfur       ppm       ASTM D2887'       153           DISTILLATION       method       imit/base       current       history1       history2         Initial Boiling Point       °C       ASTM D2887'       169           10% Distill Point       °C       ASTM D2887'       182           10% Distill P	-				-		
Sample Status       NORMAL           PHYSICAL PROPERTIES       method       limit/base       current       history1       history2         Specific Gravity       ASTM D1298'       0.802           Fuel Color       text       Visual Screen'       Clear           Fuel Color       text       Visual Screen'       Clear           Pour Point       °C       ASTM D1298'       0.802           SULFUR CONTENT       method       limit/base       current       history1       history2         Sulfur       ppm       ASTM D5185(m)       <3000	•	1110			-		
PHYSICAL PROPERTIES       method       limit/base       current       history1       history2         Specific Gravity       KSTM D1298'       0.802           Fuel Color       text       Visual Screen*       Clear          Visc @ 40°C       cSt       ASTM D727/m)       <8.0	J.						
Specific Gravity       ASTM D1298'       0.802           Fuel Color       text       Visual Screent       Clear           Visc @ 40°C       cSt       ASTM D7279(m)       <8.0       1.3           Pour Point       °C       ASTM D77*       -45       -57           SULFUR CONTENT       method       limit/base       current       history1       history2         Sulfur       ppm       ASTM D2887*       153           DISTILLATION       method       limit/base       current       history1       history2         Initial Boiling Point       °C       ASTM D2887*       169           10% Distill Point       °C       ASTM D2887*       178           10% Distill Point       °C       ASTM D2887*       195           00% Distill Point       °C       ASTM D2887*       202           00% Distill Point       °C       ASTM D2887*       209 <td< th=""><th></th><th>FRTIES</th><th>method</th><th>limit/base</th><th></th><th></th><th></th></td<>		FRTIES	method	limit/base			
Fuel Color       text       Visual Screent       Clear           Visc @ 40°C       cSt       ASTM D97*       -45       -57           Pour Point       °C       ASTM D97*       -45       -57           SULFUR CONTENT       method       limit/base       current       history1       history2         Sulfur       ppm       ASTM D5185(m)       <3000				in in base		Thistory I	This to Fyz
Visc @ 40°C       cSt       ASTM D7279(m)       <8.0       1.3           Pour Point       °C       ASTM D97*       -45       -57           SULFUR CONTENT       method       limit/base       current       history1       history2         Sulfur       ppm       ASTM D5185(m)       <3000							
Pour Point       °C       ASTM D97*       -45       -57           SULFUR CONTENT       method       limit/base       current       history1       history2         Sulfur       ppm       ASTM D5185(m)       <3000							
SULFUR CONTENT       method       limit/base       current       history1       history2         Sulfur       ppm       ASTM D5185(m)       <3000	-						
Sulfur       ppm       ASTM D5165(m)       <3000       437           DISTILLATION       method       limit/base       current       history1       history2         Initial Boiling Point       °C       ASTM D2887*       153           5% Distillation Point       °C       ASTM D2887*       169           10% Distill Point       °C       ASTM D2887*       205       174           15% Distillation Point       °C       ASTM D2887*       182            20% Distill Point       °C       ASTM D2887*       188            30% Distill Point       °C       ASTM D2887*       202            50% Distill Point       °C       ASTM D2887*       202            60% Distill Point       °C       ASTM D2887*       206            60% Distill Point       °C       ASTM D2887*       216            80% Distil	Pour Point	°C	ASTM D97*	-45	-57		
DISTILLATION       method       limit/base       current       history1       history2         Initial Boiling Point       °C       ASTM D2887'       153           5% Distillation Point       °C       ASTM D2887'       169           10% Distill Point       °C       ASTM D2887'       205       174           15% Distillation Point       °C       ASTM D2887'       182           20% Distill Point       °C       ASTM D2887'       188           30% Distill Point       °C       ASTM D2887'       195           30% Distill Point       °C       ASTM D2887'       202           50% Distill Point       °C       ASTM D2887'       202           60% Distill Point       °C       ASTM D2887'       203           70% Distill Point       °C       ASTM D2887'       234           70% Distill Point       °C       ASTM D2887'       256 <t< td=""><td>SULFUR CONTER</td><td>NT</td><td>method</td><td>limit/base</td><th>current</th><td>history1</td><td>history2</td></t<>	SULFUR CONTER	NT	method	limit/base	current	history1	history2
Initial Boiling Point       °C       ASTM D2887*       153           5% Distillation Point       °C       ASTM D2887*       205       174           10% Distill Point       °C       ASTM D2887*       205       174           15% Distillation Point       °C       ASTM D2887*       178           20% Distill Point       °C       ASTM D2887*       182           20% Distill Point       °C       ASTM D2887*       188           30% Distill Point       °C       ASTM D2887*       195           40% Distill Point       °C       ASTM D2887*       2002           60% Distill Point       °C       ASTM D2887*       209           70% Distill Point       °C       ASTM D2887*       226           80% Distill Point       °C       ASTM D2887*       234           90% Distill Point       °C       ASTM D2887*       242 </td <td>Sulfur</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>&lt;3000</td> <th>437</th> <td></td> <td></td>	Sulfur	ppm	ASTM D5185(m)	<3000	437		
5% Distillation Point     °C     ASTM D2887'     169         10% Distill Point     °C     ASTM D2887'     205     174         15% Distillation Point     °C     ASTM D2887'     205     178         20% Distill Point     °C     ASTM D2887'     182         30% Distill Point     °C     ASTM D2887'     188         30% Distill Point     °C     ASTM D2887'     195         40% Distill Point     °C     ASTM D2887'     202         50% Distill Point     °C     ASTM D2887'     209         60% Distill Point     °C     ASTM D2887'     209         70% Distill Point     °C     ASTM D2887'     216         80% Distill Point     °C     ASTM D2887'     242         90% Distill Point     °C     ASTM D2887'     242         90% Distill Point     °C     ASTM D2887'     300     276    <	DISTILLATION		method	limit/base	current	history1	history2
10% Distill Point     °C     ASTM D2887'     205     174         15% Distillation Point     °C     ASTM D2887'     178         20% Distill Point     °C     ASTM D2887'     182         30% Distill Point     °C     ASTM D2887'     188         40% Distill Point     °C     ASTM D2887'     195         50% Distill Point     °C     ASTM D2887'     202         60% Distill Point     °C     ASTM D2887'     209         60% Distill Point     °C     ASTM D2887'     209         70% Distill Point     °C     ASTM D2887'     216         80% Distill Point     °C     ASTM D2887'     234         90% Distill Point     °C     ASTM D2887'     242         90% Distill Point     °C     ASTM D2887'     300     276         90% Distill Point     °C     ASTM D5185(m)     <0.1	Initial Boiling Point	°C	ASTM D2887*		153		
15% Distillation Point     °C     ASTM D2887*     178         20% Distill Point     °C     ASTM D2887*     182         30% Distill Point     °C     ASTM D2887*     188         40% Distill Point     °C     ASTM D2887*     195         40% Distill Point     °C     ASTM D2887*     202         50% Distill Point     °C     ASTM D2887*     209         60% Distill Point     °C     ASTM D2887*     209         70% Distill Point     °C     ASTM D2887*     216         80% Distill Point     °C     ASTM D2887*     234         90% Distill Point     °C     ASTM D2887*     242         90% Distill Point     °C     ASTM D2887*     256         90% Distill Point     °C     ASTM D2887*     256         Final Boiling Point     °C     ASTM D2887*     0     0	5% Distillation Point	°C	ASTM D2887*		169		
20% Distill Point     °C     ASTM D2887*     182         30% Distill Point     °C     ASTM D2887*     188         40% Distill Point     °C     ASTM D2887*     195         50% Distill Point     °C     ASTM D2887*     202         50% Distill Point     °C     ASTM D2887*     209         60% Distill Point     °C     ASTM D2887*     216         70% Distill Point     °C     ASTM D2887*     226         80% Distill Point     °C     ASTM D2887*     234         90% Distill Point     °C     ASTM D2887*     242         90% Distill Point     °C     ASTM D2887*     300     276         95% Distillation Point     °C     ASTM D2887*     300     276         90% Distill Point     °C     ASTM D5185(m) <1.0	10% Distill Point	°C	ASTM D2887*	205	174		
30% Distill Point       °C       ASTM D2887*       188           40% Distill Point       °C       ASTM D2887*       195           50% Distill Point       °C       ASTM D2887*       202           60% Distill Point       °C       ASTM D2887*       209           60% Distill Point       °C       ASTM D2887*       216           70% Distill Point       °C       ASTM D2887*       234           80% Distill Point       °C       ASTM D2887*       234           90% Distill Point       °C       ASTM D2887*       242           90% Distill Point       °C       ASTM D2887*       300       276           90% Distill Point       °C       ASTM D2887*       300       276           90% Distill Point       °C       ASTM D5185(m) <1.0	15% Distillation Point	°C	ASTM D2887*		178		
40% Distill Point     °C     ASTM D2887*     195         50% Distill Point     °C     ASTM D2887*     202         60% Distill Point     °C     ASTM D2887*     209         70% Distill Point     °C     ASTM D2887*     209         70% Distill Point     °C     ASTM D2887*     216         80% Distill Point     °C     ASTM D2887*     226         80% Distill Point     °C     ASTM D2887*     234         90% Distill Point     °C     ASTM D2887*     242         90% Distill Point     °C     ASTM D2887*     256         95% Distillation Point     °C     ASTM D2887*     300     276         Final Boiling Point     °C     ASTM D5185(m) <1.0	20% Distill Point	°C	ASTM D2887*		182		
50% Distill Point     °C     ASTM D2887*     202         60% Distill Point     °C     ASTM D2887*     209         70% Distill Point     °C     ASTM D2887*     216         80% Distill Point     °C     ASTM D2887*     226         80% Distill Point     °C     ASTM D2887*     234         85% Distillation Point     °C     ASTM D2887*     242         90% Distill Point     °C     ASTM D2887*     256         90% Distillation Point     °C     ASTM D2887*     256         95% Distillation Point     °C     ASTM D2887*     300     276         Final Boiling Point     °C     ASTM D5185(m) <1.0	30% Distill Point	°C	ASTM D2887*		188		
60% Distill Point     °C     ASTM D2887*     209         70% Distill Point     °C     ASTM D2887*     216         80% Distill Point     °C     ASTM D2887*     226         85% Distillation Point     °C     ASTM D2887*     234         90% Distill Point     °C     ASTM D2887*     242         90% Distill Point     °C     ASTM D2887*     256         95% Distillation Point     °C     ASTM D2887*     300     276         95% Distillation Point     °C     ASTM D585(m)     <1.0	40% Distill Point	°C	ASTM D2887*		195		
70% Distill Point     °C     ASTM D2887*     216         80% Distill Point     °C     ASTM D2887*     226         85% Distillation Point     °C     ASTM D2887*     234         90% Distill Point     °C     ASTM D2887*     242         90% Distill Point     °C     ASTM D2887*     242         95% Distillation Point     °C     ASTM D2887*     256         95% Distillation Point     °C     ASTM D2887*     300     276         Final Boiling Point     °C     ASTM D5185(m) <1.0	50% Distill Point	°C	ASTM D2887*		202		
80% Distill Point     °C     ASTM D2887*     226         85% Distillation Point     °C     ASTM D2887*     234         90% Distill Point     °C     ASTM D2887*     242         95% Distillation Point     °C     ASTM D2887*     256         95% Distillation Point     °C     ASTM D2887*     300     276         Final Boiling Point     °C     ASTM D2887*     300     276         CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185(m)     <0.1	60% Distill Point	°C	ASTM D2887*		209		
85% Distillation Point     °C     ASTM D2887*     234         90% Distill Point     °C     ASTM D2887*     242         95% Distillation Point     °C     ASTM D2887*     256         95% Distillation Point     °C     ASTM D2887*     300     276         Final Boiling Point     °C     ASTM D2887*     300     276         CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185(m)     <1.0	70% Distill Point	°C	ASTM D2887*		216		
90% Distill Point     °C     ASTM D2887*     242         95% Distillation Point     °C     ASTM D2887*     256         Final Boiling Point     °C     ASTM D2887*     300     276         CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185(m)     <1.0	80% Distill Point	°C	ASTM D2887*		226		
95% Distillation Point       °C       ASTM D2887*       256           Final Boiling Point       °C       ASTM D2887*       300       276           CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185(m)       <1.0	85% Distillation Point	°C	ASTM D2887*		234		
Final Boiling Point       °C       ASTM D2887*       300       276           CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185(m)       <1.0       0           Sodium       ppm       ASTM D5185(m)       <0.1       <1           Potassium       ppm       ASTM D5185(m)       <0.1       0           Water       %       ASTM D6304*       <0.05       0.003           ppm Water       ppm       ASTM D6304*       <500       26           MICROBIAL       method       limit/base       current       history1       history2	90% Distill Point	°C	ASTM D2887*		242		
CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185(m) <1.0	95% Distillation Point	°C	ASTM D2887*		256		
Silicon       ppm       ASTM D5185(m)       <1.0       0           Sodium       ppm       ASTM D5185(m)       <0.1	Final Boiling Point	°C	ASTM D2887*	300	276		
Sodium       ppm       ASTM D5185(m)       <0.1	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium       ppm       ASTM D5185(m)       <0.1       <1           Potassium       ppm       ASTM D5185(m)       <0.1	Silicon	ppm	ASTM D5185(m)	<1.0	0		
Potassium       ppm       ASTM D5185(m)       <0.1       0           Water       %       ASTM D6304*       <0.05	Sodium	ppm	ASTM D5185(m)	<0.1	<1		
Water       %       ASTM D6304*       <0.05       0.003           ppm Water       ppm       ASTM D6304*       <500							
ppm WaterppmASTM D6304*<50026MICROBIALmethodlimit/basecurrenthistory1history2					0.003		
Microbes CFU/L ASTM D6469* >=100000 0	MICROBIAL		method	limit/base	current	history1	history2
	Microbes	CFU/L	ASTM D6469*	>=100000	0		

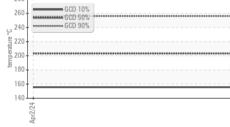


# **FUEL REPORT**









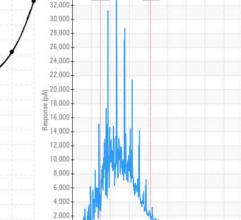
	_0	methou				nistory2
Aluminum	ppm	ASTM D5185(m)	<0.1	0		
Nickel	ppm	ASTM D5185(m)	<0.1	0		
Lead	ppm	ASTM D5185(m)	<0.1	0		
Vanadium	ppm	ASTM D5185(m)	<0.1	0		
Iron	ppm	ASTM D5185(m)	<0.1	0		
Calcium	ppm	ASTM D5185(m)	<0.1	0		
Magnesium	ppm	ASTM D5185(m)	<0.1	0		
Phosphorus	ppm	ASTM D5185(m)	<0.1	<1		
Zinc	ppm	ASTM D5185(m)	<0.1	0		
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
						·
GRAPHS Fuel Distillation	Curve	8 2 8	10-		ens Flash Point (	°C)
Fuel Distillation	Curve				ens Flash Point (	°C)
Fuel Distillation	Curve				ens Flash Point (	°C)
Fuel Distillation	Curve				ens Flash Point (	<u>°</u> C)
Fuel Distillation	Curve		ې ۵. مېرلې ۵. مېرلې		ens Flash Point (	°C)
Fuel Distillation	Curve				ens Flash Point (	°C)
Fuel Distillation	Curve		ې ۵. مېرلې ۵. مېرلې		ens Flash Point (	°C)
Fuel Distillation	Curve		ې 5: emperature -5.		ens Flash Point (	°C)
Fuel Distillation	Curve		ې 5: emperature -5.	Apri2/24		°C)
Fuel Distillation	Curve		ې 5: emperature -5.	GCD Spectru	m	°C)
Fuel Distillation	Curve		ی 5. 0. بیسل می 5. -10-	Apri2/24		°C)
Fuel Distillation	Curve		دي 5. المعلوم المعلوم -10 - 34,000	GCD Spectru	m	°C)
Fuel Distillation	Curve		34,000 30,000 28,000	GCD Spectru	m	°C)
Fuel Distillation	Curve		34,000 30,000 26,000	GCD Spectru	m	°C)
Fuel Distillation	Curve		34,000 30,000 26,000 24,000	GCD Spectru	m	°C)
Fuel Distillation	Curve		34,000 30,000 28,000 24,000 22,000	GCD Spectru	m	°C)
Fuel Distillation	Curve		34,000 30,000 28,000 24,000 22,000	GCD Spectru	m	°C)
Fuel Distillation	Curve		34,000 30,000 28,000 24,000 22,000	GCD Spectru	m	°C)

%00

: 04 Apr 2024

: 09 Apr 2024

90% 80%





ŭ	Accredited	Unique Number	: 5759936	Diagnosed	: 09 Apr 2024 - Kevin Marson
6	Laboratory	Test Package	: FUEL		
2	To discuss th	is sample report	contact Custome	er Service at 1-800-268-	2131.
	Test denoted	(*) outside scop	e of accreditation,	(m) method modified, (	e) tested at external lab.
~	Validity of res	ults and internre	tation are based (	on the sample and infor	mation as supplied

20% 40%

Percent Recovered

80% 70%

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Received

Tested

180°C

170°C

160°0

150%

140°0

130°C 120°C

Sample No. : WC0899305

Lab Number : 02626804

Laboratory

%0

10% 20% 30%

> SUNWING AIRLINES 44 FASKEN DRIVE, UNIT 12/13 ETOBICOKE, ON CA M9W 5M8 Contact: Geoff Carroll gcarroll@flysunwing.com T: (416)802-9643 F: (416)640-1595

Report Id: SUNETO [WCAMIS] 02626804 (Generated: 04/09/2024 15:39:21) Rev: 1

CALA

ISO 17025:2017

Contact/Location: Geoff Carroll - SUNETO Page 2 of 2

Time (min)