

[Redacted] Phoenix, Arizona 85017  
Phone: [Redacted]

<b>Customer Name:</b> WINDWARD AVIATION	<b>Tail Number:</b> N297DB	<b>Comp Serial N°:</b> 241032-R
<b>Address:</b> [Redacted] Lantana FL 33462 USA	<b>Aircraft Make:</b> Cessna	<b>Comp Name:</b> Left Engine
<b>Phone:</b> [Redacted]	<b>Aircraft Model:</b> 421C	<b>Comp Make:</b> Continental
<b>Fax:</b> [Redacted]	<b>Serial N°:</b>	<b>Comp Model:</b> GTSIO-520L
	<b>UIN:</b> 02C0544	

Sample N°	44150057118	44150037345	44150032961
<b>Date Samples</b>	11-Oct-12	23-Dec-11	19-Oct-11
<b>Date Tested</b>	29-Oct-12	17-Jan-12	31-Oct-11
<b>Oil Brand</b>	Shell	Shell	Shell
<b>Oil Type</b>	AeroShell W100	AeroShell W100	AeroShell 100
<b>Oil Grade</b>	SAE 50	SAE 50	SAE 50
<b>Oil Hrs</b>	41	31	26
<b>Oil Added</b>			
<b>Hrs Since New</b>	5057	4990	
<b>Rebuild Hrs</b>	313	246	219
<b>Metals (ppm)</b>			
Aluminium (Al)	13	8	8
Iron (Fe)	33.75	32.93	34.54
Copper (Cu)	6.58	5.72	3.69
Nickel (Ni)	20	16	20
Chromium (Cr)	5	5	5
Silver (Ag)	<1	<1	<1
<b>Contaminants (ppm)</b>			
Silicon (Si)	6	6	5

**LEGEND**



Severe



Abnormal



Caution



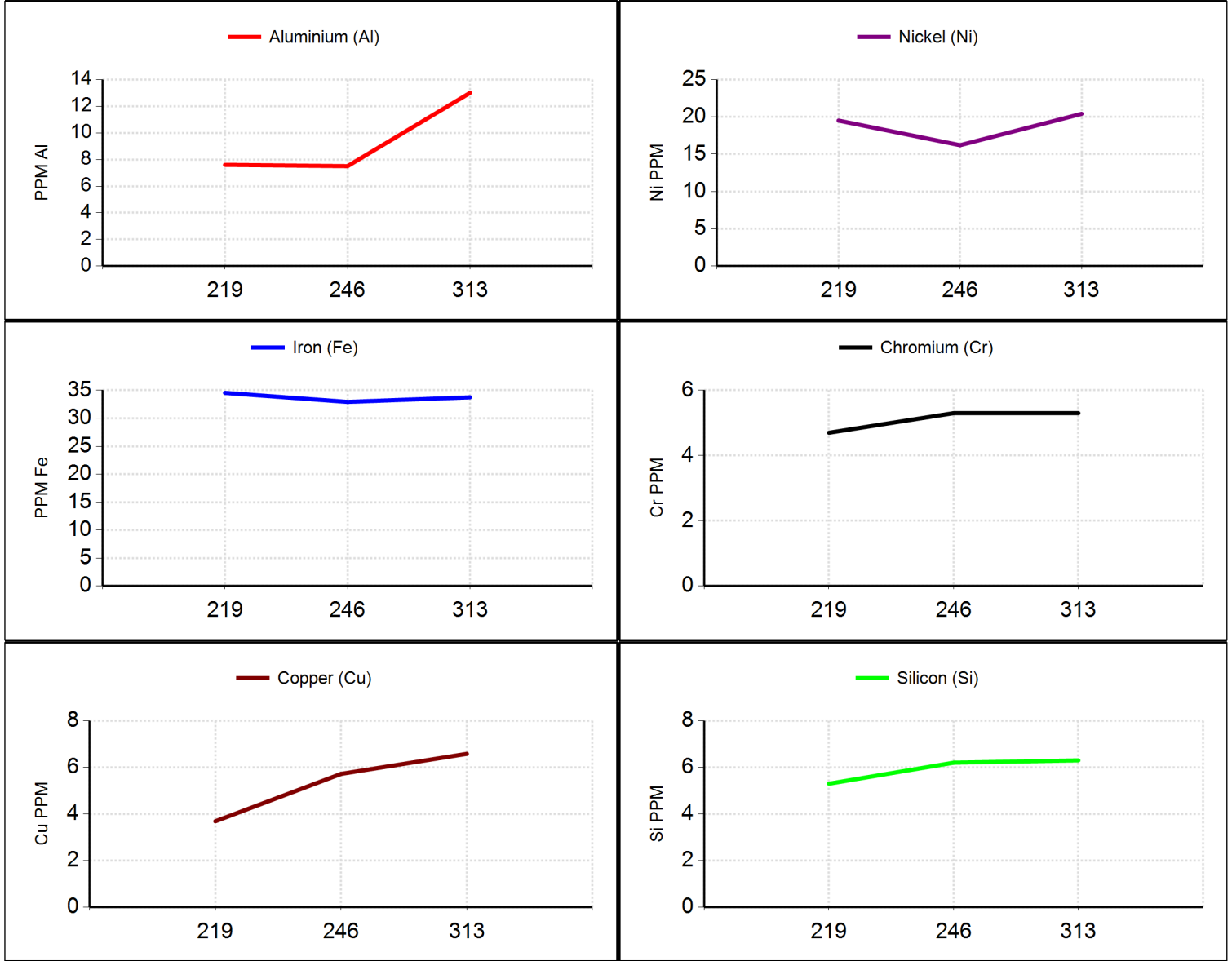
Normal







Sample N°	Diagnosis/Recommendations
44150057118	All values appear normal.
44150037345	All values appear normal.
44150032961	All values appear normal. Resample next oil change to establish wear trend.



*Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Laboratory group for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.*

Windward Aviation  
 Attn: Jim Leach  
 [REDACTED]  
 Lantana FL 33462  
 USA

**TEST METHODS:**  
 Acid Number: ASTM D974/D664  
 Metals by AA Spectro: ASTM D6595  
 Viscosity: ASTM D445 / D7279  
 Water by Crackle: ASTM E203 Mod / In House

0037 v1.1



**Customer Name:** WINDWARD AVIATION  
**Address:** [REDACTED]  
 Lantana FL 33462  
 USA  
**Phone:** 5619668668  
**Fax:** 5619669880

**Tail Number:** N297DB  
**Aircraft Make:** Cessna  
**Aircraft Model:** 421C  
**Serial N°:**  
**UIN:** 02C0543

**Comp Serial N°:** 246611R  
**Comp Name:** Right Engine  
**Comp Make:** Continental  
**Comp Model:** GTSIO-520L

Sample N°	44150057119	44150037564	44150033191
Date Samples	11-Oct-12	23-Dec-11	19-Oct-11
Date Tested	29-Oct-12	19-Jan-12	31-Oct-11
Oil Brand	Shell	Shell	Shell
Oil Type	AeroShell W100	AeroShell W100	AeroShell 100
Oil Grade	SAE 50	SAE 50	SAE 50
Oil Hrs	41	31	26
Oil Added			
Hrs Since New	2504	2422	
Rebuild Hrs	981	899	868

Metals (ppm)	44150057119	44150037564	44150033191
Aluminium (Al)	16	12	5
Iron (Fe)	36.57	35.50	25.59
Copper (Cu)	6.92	6.29	3.37
Nickel (Ni)	19	13	11
Chromium (Cr)	7	8	4
Silver (Ag)	<1	<1	<1

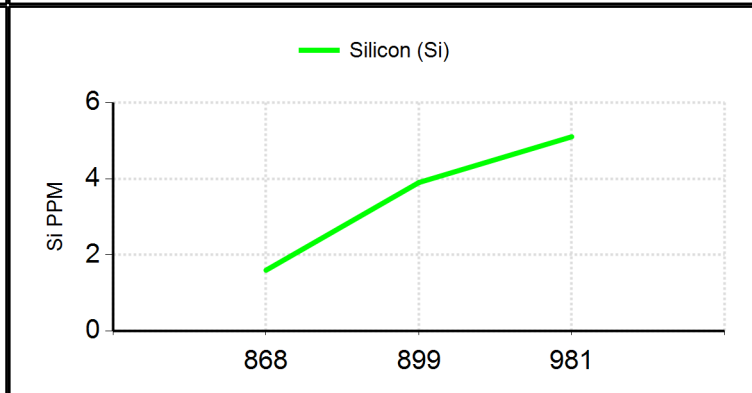
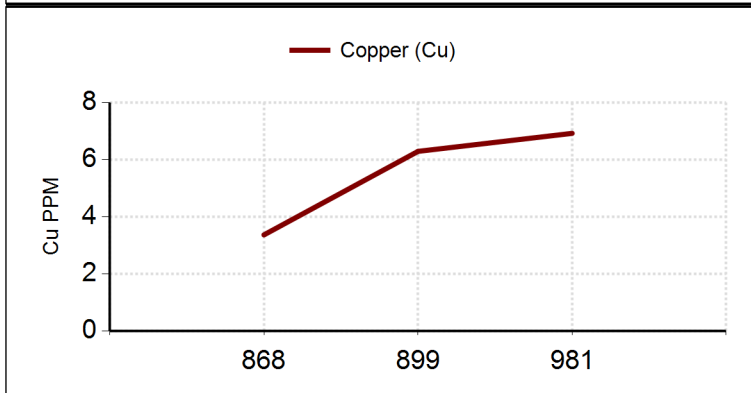
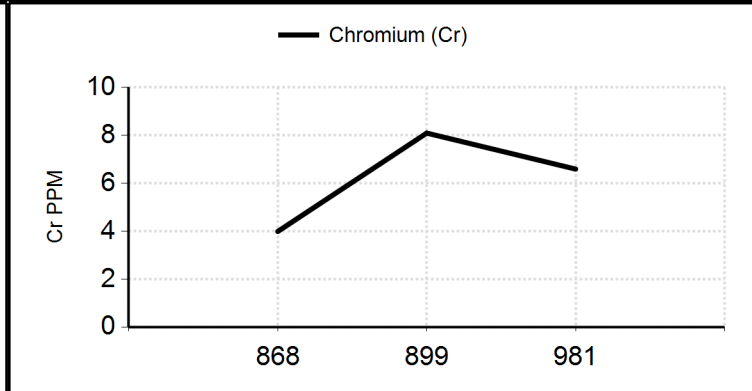
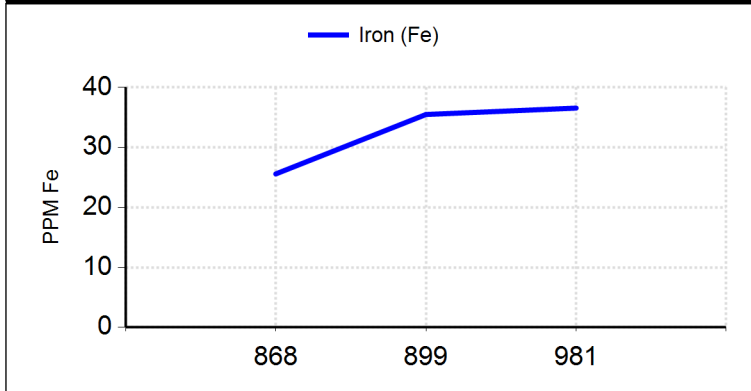
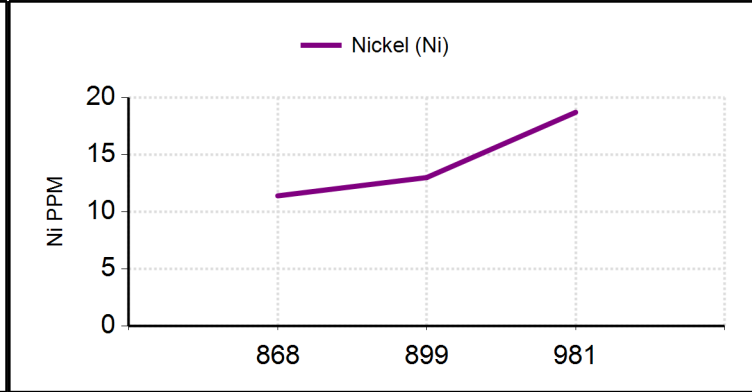
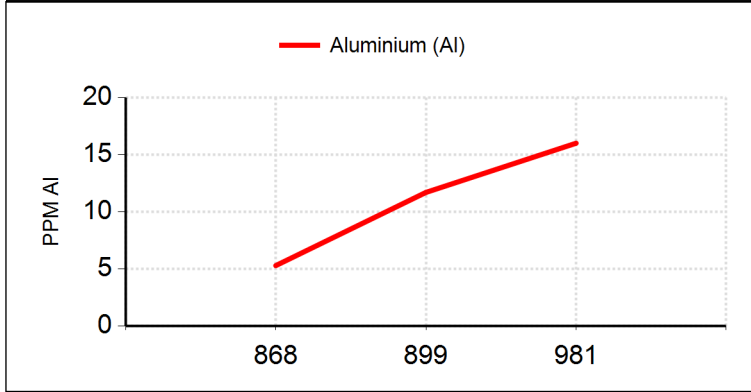
Contaminants (ppm)	44150057119	44150037564	44150033191
Silicon (Si)	5	4	2

**LEGEND**



Sample N°	Diagnosis/Recommendations
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44150057119	All values appear normal.
44150037564	All values appear normal.
44150033191	All values appear normal. Resample next oil change to establish wear trend.



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