ANALYSIS RESULTS

910 MARIA STREET KENNER, LOUISIANA 70062 (504) 469-6751

JEFFREY LIEGNER MD Attn: JEFF LIEGNER 350 SPARTA AVE BLDG A Aircraft: LANCAIR IV S/N: 464 Tail No.: N334P Date: 10/21/2011 Engine S/N: 803225 Engine Model: CONT. T550

SPARTA NJ 07871 United States

Values in (parenthesis) below your results are average values from all our analysis data for the same engine model with similar engine hours and oil hours. See <a href="https://www.avlab.com/explain">www.avlab.com/explain</a> for detailed explanation of the statistical analysis used with your laboratory results.

JRRENT SAMPLE	** SEE	LAB COMM	IENTS **							Normal	Elevated	High
Sample Date: 9/24/2011	$\top$	*** OIL ANALYSIS RESULTS IN PARTS PER MILLION								**		
Analysis Date: 10/17/2011	Iron	Copper	Nickel				Aluminum		Silicon	Titanium	Tin	Moly
Sample Number: P110	91.1	10.4	45.7	21.2	N/A	N/A	7.3	7908	2.5	N/A	< 0.1	N/A
Cylinder Type: steel	(N/A)		(N/A)	(N/A)			(N/A)	(N/A)	(N/A)		(N/A)	
-					*** FI	I TED ANAI	LYSIS RESU	ITC **:	*			
TSN/TSO: unknown				0			_1313 KE3U					
		Material:	Stainle: Steel		Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Mis
Oil Hours: <sup>50</sup> Filter Hours: <sup>50</sup>		Amount:				703	- сорро-			7		
	<u> </u>											
Oil Added: 2		Type:										
Filter Wt. (mgs):												
Flashpoint(deg. F):		Form:										
H20 (ppm):												
Total Acid No.:												
IMMENTS: NOTE INCREASES. PLEAS INTINUE TO MONITOR WEAR META					RER'S SE	RVICE REP	FOR FURTHE	ER ASSIS	TANCE. W	/E WILL		
REVIOUS SAMPLE 1	** SEE	LAB COMM	IENTS **							Normal	Elevated	High
Sample Date: 2/21/2011	T			*** OIL	ANALY:	SIS RESULT	TS IN PARTS	PER M	ILLION *		<u></u>	9.
Analysis Date: 3/25/2011	Iron	Copper	Nickel	Chromium		Magnesium	Aluminum	Lead	Silicon	Titanium	Tin	Mol
Sample Number: P21	64.5	10.0	31.1	17.9	N/A	N/A	4.7	6339	2.5	N/A	< 0.1	N/A
Cylinder Type: steel	(61.7)		(24.7)	(16.8)	IN/A	IN/A	(4.9)	(6111)	(5.0)	IN/A	(0.2)	IN//
-,	(- )		,	` '	*** FI	I TED ANAI	LYSIS RESU				. ,	
TSN/TSO: 335	<u> </u>		Stainle	ss Carbon	Alloy	Bearing	-1313 KE30					
Oil Hours: 35		Material:	Steel		Steel	Alloy	Copper	Silver	Magn.	Alum.	Grit	Mis
Filter Hours: 35		Amount:										
Oil Added: 1	<u> </u>											
Filter Wt. (mgs):		Type:										
Flashpoint(deg. F):												
H20 (ppm):		Form:										
Total Acid No.:												
i otal Acia No					- CONTA	OT THE EN		ACTURE	DIC CEDVI	OF DED FOI		
		VILLEO OFF	** T L L \ / \	TED DIEAC				ACTURE	K S SERVI	CE REP FOR	<	
mments: NOTE NICKEL AND CHRO												
RTHER ASSISTANCE. WE WILL CO	ONTINUE	TO MONIT	OR WEAF							Normal	Flourated	Lligh
RTHER ASSISTANCE. WE WILL CO	ONTINUE		OR WEAF	R METAL TRI	END ON Y	OUR NEXT	SAMPLE.				Elevated	High
REVIOUS SAMPLE 2  Sample Date: 8/5/2010	** SEE I	TO MONITO	OR WEAF	*** OIL	END ON Y	YOUR NEXT S	SAMPLE.	S PER M		***	Elevated	
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010	** SEE I	LAB COMM	OR WEAF	*** OIL	ANALYS	OUR NEXT S	SAMPLE.  IS IN PARTS Aluminum	S PER M Lead	Silicon	*** Titanium	Elevated Tin	High
RTHER ASSISTANCE. WE WILL CO REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03	** SEE I	LAB COMM  Copper  13.4	OR WEAR  IENTS **  Nickel  36.4	*** OIL Chromium 23.6	END ON Y	YOUR NEXT S	SAMPLE.  TS IN PARTS  Aluminum  1.6	PER M Lead 10905	Silicon 2.9	***	Tin < 0.1	Mol
RTHER ASSISTANCE. WE WILL CO REVIOUS SAMPLE 2 Sample Date: 8/5/2010 Analysis Date: 8/25/2010	** SEE I	LAB COMM  Copper  13.4	OR WEAF	*** OIL	ANALYS Silver	OUR NEXT S	SAMPLE.  TS IN PARTS  Aluminum  1.6 (8.0)	S PER M Lead 10905 (7830)	2.9 (6.3)	*** Titanium	Elevated Tin	Mol
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel	** SEE I	LAB COMM  Copper  13.4	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0)	ANALYS Silver N/A *** FI	OUR NEXT S	SAMPLE.  TS IN PARTS  Aluminum  1.6	S PER M Lead 10905 (7830)	2.9 (6.3)	*** Titanium	Tin < 0.1	Mol
RTHER ASSISTANCE. WE WILL CO REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel  TSN/TSO: 300	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI Alloy	SIS RESULT Magnesium N/A  LTER ANAL Bearing	SAMPLE.  IS IN PARTS Aluminum  1.6 (8.0)  LYSIS RESU	S PER M Lead 10905 (7830)	2.9 (6.3)	Titanium N/A	Tin < 0.1 (0.3)	Mol N//
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel  TSN/TSO: 300  Oil Hours: 60	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI	OUR NEXT S	SAMPLE.  TS IN PARTS  Aluminum  1.6 (8.0)	S PER M Lead 10905 (7830)	2.9 (6.3)	*** Titanium	Tin < 0.1	Mol N/A
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel  TSN/TSO: 300  Oil Hours: 60  Filter Hours: 60	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI Alloy	SIS RESULT Magnesium N/A  LTER ANAL Bearing	SAMPLE.  IS IN PARTS Aluminum  1.6 (8.0)  LYSIS RESU	S PER M Lead 10905 (7830)	2.9 (6.3)	Titanium N/A	Tin < 0.1 (0.3)	Mol N/A
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel  TSN/TSO: 300  Oil Hours: 60	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI Alloy	SIS RESULT Magnesium N/A  LTER ANAL Bearing	SAMPLE.  IS IN PARTS Aluminum  1.6 (8.0)  LYSIS RESU	S PER M Lead 10905 (7830)	2.9 (6.3)	Titanium N/A	Tin < 0.1 (0.3)	Mol N/A
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel  TSN/TSO: 300  Oil Hours: 60  Filter Hours: 60	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)  Material:	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI Alloy	SIS RESULT Magnesium N/A  LTER ANAL Bearing	SAMPLE.  IS IN PARTS Aluminum  1.6 (8.0)  LYSIS RESU	S PER M Lead 10905 (7830)	2.9 (6.3)	Titanium N/A	Tin < 0.1 (0.3)	Mol N//
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel  TSN/TSO: 300  Oil Hours: 60  Filter Hours: 60  Oil Added:	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)  Material:  Amount:	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI Alloy	SIS RESULT Magnesium N/A  LTER ANAL Bearing	SAMPLE.  IS IN PARTS Aluminum  1.6 (8.0)  LYSIS RESU	S PER M Lead 10905 (7830)	2.9 (6.3)	Titanium N/A	Tin < 0.1 (0.3)	Mol N//
REVIOUS SAMPLE 2  Sample Date: 8/5/2010  Analysis Date: 8/25/2010  Sample Number: P03  Cylinder Type: steel  TSN/TSO: 300  Oil Hours: 60  Filter Hours: 60  Oil Added: Filter Wt. (mgs):	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)  Material:	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI Alloy	SIS RESULT Magnesium N/A  LTER ANAL Bearing	SAMPLE.  IS IN PARTS Aluminum  1.6 (8.0)  LYSIS RESU	S PER M Lead 10905 (7830)	2.9 (6.3)	Titanium N/A	Tin < 0.1 (0.3)	Mol N/A
REVIOUS SAMPLE 2  Sample Date: 8/5/2010 Analysis Date: 8/25/2010 Sample Number: P03 Cylinder Type: steel  TSN/TSO: 300 Oil Hours: 60 Filter Hours: 60 Oil Added: Filter Wt. (mgs): Flashpoint(deg. F):	** SEE I Iron 97.0 (108.	Copper 13.4 (10.7)  Material:  Amount:	Nickel 36.4 (31.3)	*** OIL Chromium 23.6 (21.0) ss Carbon	ANALYS Silver N/A *** FI Alloy	SIS RESULT Magnesium N/A  LTER ANAL Bearing	SAMPLE.  IS IN PARTS Aluminum  1.6 (8.0)  LYSIS RESU	S PER M Lead 10905 (7830)	2.9 (6.3)	Titanium N/A	Tin < 0.1 (0.3)	