



# OIL REPORT

LAB NUMBER: K64748      UNIT ID: N736YB  
 REPORT DATE: 10/24/2018      CLIENT ID: 88231  
 CODE: 20/32      PAYMENT: CC: MC

<b>UNIT</b>	MAKE/MODEL: Continental IO-360-KB2B	OIL TYPE & GRADE: Aeroshell 15W/50
	FUEL TYPE: Gasoline (Leaded)	OIL USE INTERVAL: 30 Hours
	ADDITIONAL INFO: Cessna R172K, Hawk XP11, S/N 288684-R, R1722884	

<b>CLIENT</b>	JAMES CARLSON	PHONE: (978) 873-0507
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**COMMENTS** JAMES: Wear has gone up for this IO-360, with aluminum (pistons) and nickel (exhaust valve guide area) testing a bit high. We're always on the lookout for exhaust valve guide problems in Continental engines, but it's too early to call one. This is just the first sample with excess wear, and a change in use or excess heat could cause that. Assuming the engine starts up and runs strong, we'll give metals a chance to drop before calling a problem. No contamination from fuel or water showed up, and the viscosity was normal. Check back at the next service to watch trends.

<b>ELEMENTS IN PARTS PER MILLION</b>	MI/HR on Oil	30	<b>UNIT / LOCATION AVERAGES</b>	20	21	26	52	<b>UNIVERSAL AVERAGES</b>
	MI/HR on Unit	880		801	783	763	739	
	Sample Date	9/17/2018		3/30/2017	9/5/2016	5/13/2016	9/8/2015	
	Make Up Oil Added	1 qt		1 qt	1 qt	1 qt	1 qt	
ALUMINUM	12	6	4	2	4	6	6	
CHROMIUM	6	3	3	1	3	3	6	
IRON	50	36	29	17	38	45	38	
COPPER	5	3	3	2	2	3	5	
LEAD	4170	4155	3043	2991	4096	6477	3295	
TIN	1	0	0	0	0	1	2	
MOLYBDENUM	2	2	2	1	2	2	3	
NICKEL	7	3	3	1	3	3	2	
MANGANESE	1	1	0	0	1	1	1	
SILVER	0	0	0	0	0	0	0	
TITANIUM	0	0	0	0	0	0	0	
POTASSIUM	1	1	0	2	0	1	1	
BORON	1	1	1	0	3	1	1	
SILICON	18	7	4	4	4	3	12	
SODIUM	1	2	1	2	2	2	1	
CALCIUM	4	2	1	0	1	2	13	
MAGNESIUM	0	1	1	2	1	0	2	
PHOSPHORUS	1145	1133	1259	1093	1157	1013	982	
ZINC	6	5	5	3	6	5	6	
BARIUM	0	0	0	0	0	0	0	

Values Should Be\*

<b>PROPERTIES</b>	SUS Viscosity @ 210°F	89.5	82-105	88.0	85.1	86.7	94.3
	cSt Viscosity @ 100°C	17.86	16.0-21.8	17.50	16.78	17.17	19.00
	Flashpoint in °F	450	>440	495	470	430	445
	Fuel %	<0.5	<1.0	<0.5	<0.5	0.5	<0.5
	Antifreeze %	-		-	-	-	-
	Water %	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.3	<0.6	0.2	0.2	0.3	0.3
	TBN						
	TAN						
	ISO Code						

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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