



**OIL  
REPORT**

LAB NUMBER: S091284      UNIT ID: N4904B  
 REPORT DATE: 7/31/2024      CLIENT ID: 94499  
 CODE: 1/88      PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Lycoming O-320-E2D FUEL TYPE: Gasoline (Leaded) ADDITIONAL INFO: Cessna 152, S/N: L-39615-27A	OIL TYPE & GRADE: Phillips XC (A/C) 20W/50 OIL USE INTERVAL: 43 Hours
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CLIENT	RIAN KELLER NORTHWEST AIRCRAFT MAINTENANCE 3301 NE CORNELL RD STE B HILLSBORO, OR 97124	PHONE: (503) 648-3670 FAX: ALT PHONE: EMAIL: rian@northwestaircraft.com
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COMMENTS	RIAN: With no water present in this sample, we can issue N4904B a clean report this time! Without water contamination, we were able to run our flashpoint test to look for fuel, and the 455°F reading is high enough to rule out any significant amount of avgas in this oil. Insolubles were okay at 0.5% -- the oil wasn't overly oxidized. The viscosity is in spec for the Phillips XC 20W/50 in use. Wear metals stuck within close ranges of what we've come to expect from this O-320, so no mechanical concerns stick out. Looking good from here!
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ELEMENTS IN PARTS PER MILLION	43	UNIT / LOCATION AVERAGES	44	33	23	33	41	UNIVERSAL AVERAGES
			2,078	2,034	2,598	1,953	1,920	
MI/HR on Oil	43		5/29/2024	4/16/2024	2/20/2024	11/22/2023	8/7/2023	
MI/HR on Unit	2,120							
Sample Date	6/24/2024							
Make Up Oil Added								
ALUMINUM	3	7	3	4	4	5	6	5
CHROMIUM	5	10	6	8	8	7	9	5
IRON	25	33	24	25	23	26	37	24
COPPER	3	4	2	2	2	2	4	6
LEAD	3907	4197	3444	3703	2903	3174	4218	3057
TIN	1	1	3	0	1	0	1	1
MOLYBDENUM	0	0	0	0	0	0	0	0
NICKEL	1	2	1	1	1	1	1	2
MANGANESE	0	0	0	0	0	0	0	0
SILVER	0	0	0	0	0	0	0	0
TITANIUM	0	0	0	0	0	0	0	0
POTASSIUM	0	0	0	0	0	0	0	0
BORON	3	2	1	1	5	1	1	1
SILICON	3	5	3	3	4	4	3	5
SODIUM	2	2	2	2	1	1	1	2
CALCIUM	0	1	1	2	1	0	0	23
MAGNESIUM	0	0	0	0	0	0	0	0
PHOSPHORUS	3	1	0	1	1	2	2	525
ZINC	1	1	1	1	1	1	2	5
BARIUM	0	0	0	0	0	0	0	0

Values  
Should Be\*

PROPERTIES	SUS Viscosity @ 210°F	92.0	86-105	89.6	90.9	89.7	94.7	93.1
	cSt Viscosity @ 100°C	18.45	17.0-21.8	17.88	18.20	17.90	19.11	18.73
	Flashpoint in °F	455	>430	BOIL	440	450	425	465
	Fuel %	<0.5	<1.0	-	<0.5	<0.5	TR	<0.5
	Antifreeze %	-		-	-	-	-	-
	Water %	0.0	0.0	POS	0.0	0.0	0.0	0.0
	Insolubles %	0.5	<0.6	0.4	0.5	0.4	0.3	0.3
	TBN							
	TAN							
	ISO Code							

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

416 E. PETTIT AVE. FORT WAYNE, IN 46806 (260) 744-2380 [www.blackstone-labs.com](http://www.blackstone-labs.com)