



OIL REPORT

LAB NUMBER: R13904

UNIT ID: NO TAIL

REPORT DATE: 5/31/2023

CLIENT ID: 209413

CODE: 80/88

PAYMENT: CC: MC

UNIT

MAKE/MODEL: Lycoming IO-360-A1A
FUEL TYPE: Gasoline (Leaded)
ADDITIONAL INFO:

OIL TYPE & GRADE: Aeroshell 15W/50
OIL USE INTERVAL: 23 Hours

CLIENT

MERRILL SMITH
FELLOWSHIP OF THE WING LLC
[REDACTED]
RIVERTON, UT 84065

PHONE: [REDACTED]
FAX:
ALT PHONE:
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COMMENTS

MERRILL: These results look pretty good considering this sample is from an engine that was damaged beyond repair. Granted, our spectral analysis only picks up on microscopic metal, so big pieces wouldn't show up. Most metals compare well next to our universal averages for this engine type, which are based on ~30-hour oil runs. Copper is high, though it could just be elevated due to a harmless reaction between some Lycoming parts and Aeroshell 15W/50. It could show bronze/brass wear at parts like the bearings/bushings, though. All else looks good. Not bad at all.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	23	UNIT / LOCATION AVERAGES						UNIVERSAL AVERAGES
	MI/HR on Unit	2,400							
	Sample Date	5/10/2023							
	Make Up Oil Added								
	ALUMINUM	7		5					
	CHROMIUM	1		1					
	IRON	19		16					
	COPPER	21		12					
	LEAD	2131		3121					
	TIN	2		1					
	MOLYBDENUM	0		0					
	NICKEL	1		1					
	MANGANESE	0		0					
	SILVER	0		0					
	TITANIUM	0		0					
	POTASSIUM	0		0					
	BORON	1		1					
	SILICON	3		11					
	SODIUM	2		2					
	CALCIUM	2		32					
	MAGNESIUM	1		1					
	PHOSPHORUS	1190		778					
	ZINC	5		4					
	BARIUM	0		0					

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	87.3	82-105					
	cSt Viscosity @ 100°C	17.32	16.0-21.8					
	Flashpoint in °F	495	440					
	Fuel %	<0.5	<1.0					
	Antifreeze %							
	Water %	0.0	0.0					
	Insolubles %	0.1	0.6					
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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