



OIL REPORT

LAB NUMBER: P88790 UNIT ID: N8382Z
 REPORT DATE: 6/27/2022 CLIENT ID: 168907
 CODE: 20/175 PAYMENT: CC: MC (Bulk)

UNIT	MAKE/MODEL: Lycoming O-540-J3A5D	OIL TYPE & GRADE: Aircraft Engine Oil
	FUEL TYPE: Gasoline (Leaded)	OIL USE INTERVAL: Hours
	ADDITIONAL INFO: Piper Dakota PA28-40A, S/N: L-21175-40A, 28-8111064, Chrome/Mixed Cyls	

CLIENT	CHARLIE MUELLER	PHONE: (314) 369-7781
	4301 GULF SHORE BLVD N	FAX:
	APT 500	ALT PHONE:
	NAPLES, FL 34103	EMAIL: charliemueller@comcast.net

COMMENTS CHARLIE: Boy, we really thought we might see improvement after the reconditioned cylinder went on, but aluminum and chrome didn't change much at all. We'd guess this oil was run 40ish hours, like usual, though if it was a significantly shorter or longer oil change that might alter our interpretation of the data. As it stands, this engine hasn't changed much, which is good in a way. It would be nice to see less aluminum and chrome, but on the other hand, they're steady and steady is typically pretty good news. Keep watching temps & for oil filter metal and resample.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil		40	71	45	56	UNIVERSAL AVERAGES
	MI/HR on Unit		1,877	1,803	1,776	1,750	
	Sample Date	6/16/2022	12/2/2021	4/20/2021	2/17/2021	9/23/2020	
	Make Up Oil Added		6 qts		4 qts	7 qts	
		UNIT / LOCATION AVERAGES					
ALUMINUM	12	13	13	14	12	14	6
CHROMIUM	10	14	12	14	17	19	4
IRON	51	49	42	50	55	47	28
COPPER	8	6	8	6	6	4	8
LEAD	3779	4718	4171	4557	4904	6181	3829
TIN	2	2	2	1	3	0	1
MOLYBDENUM	1	2	1	2	2	2	0
NICKEL	3	4	3	4	5	3	2
MANGANESE	1	1	1	1	1	0	0
SILVER	0	0	0	0	0	0	0
TITANIUM	0	0	0	0	0	0	0
POTASSIUM	0	0	0	0	0	0	0
BORON	1	1	1	1	0	0	1
SILICON	5	4	5	4	4	2	6
SODIUM	3	2	1	2	2	0	1
CALCIUM	101	54	4	86	77	1	23
MAGNESIUM	5	5	3	5	7	3	7
PHOSPHORUS	122	168	581	71	53	15	680
ZINC	2	2	3	2	2	0	5
BARIUM	0	0	0	0	0	0	0

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	97.2		94.3	88.8	91.3	95.5
	cSt Viscosity @ 100°C	19.69		19.00	17.68	18.30	19.29
	Flashpoint in °F	455	>430	485	460	495	460
	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 %	0.2	<0.6	0.3	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