



OIL REPORT

LAB NUMBER: S029660

UNIT ID: N5813F

REPORT DATE: 3/8/2024

CLIENT ID: 205484

CODE: 20/88

PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Lycoming IO-360-A3B6D	OIL TYPE & GRADE: Phillips XC (A/C) 20W/50
	FUEL TYPE: Gasoline (Leaded)	OIL USE INTERVAL: 53 Hours
	ADDITIONAL INFO: Mooney M201J, S/N: L-24181-51A, Chrome Cyls, Previously N58132	

CLIENT	MIKE FORS	PHONE: (503) 504-2670
	414 NE 67TH AVE	FAX:
	PORTLAND, OR 97213	ALT PHONE:
		EMAIL: mike.fors@gmail.com

COMMENTS	MIKE: Nothing major to report for the 9/14/23 sample. Chrome, iron, and nickel are noticeably higher than last time, but only nickel is high enough to mark -- chrome and iron still show normal cylinder and steel wear for this engine. Nickel's higher level indicates extra exhaust valve guide wear, though. 7 ppm isn't high enough to spell trouble, but it's worth checking back on in case it develops. In the meantime, watch for bad mag drops and rough running as signs of valve guide wear. No harmful contamination is present. Oil filtration kept insolubles low. Decent report, overall.
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ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	53	UNIT / LOCATION AVERAGES	20	39	37	11	10	UNIVERSAL AVERAGES
	MI/HR on Unit	3,795			3,682	3,682	1,800	1,721	
	Sample Date	9/14/2023		6/29/2023	9/27/2022	6/20/2022	9/20/2019	6/8/2019	
	Make Up Oil Added				2 qts	3 qts	1 qt	1 qt	
	ALUMINUM	6	4	7	4	5	3	3	6
	CHROMIUM	17	14	4	9	16	11	12	3
	IRON	34	12	8	17	19	10	9	25
	COPPER	3	1	1	2	2	1	1	7
	LEAD	3977	2141	1348	3364	2953	1397	1550	3489
	TIN	1	1	2	2	1	0	3	1
	MOLYBDENUM	0	0	0	0	0	0	0	0
	NICKEL	7	2	1	2	2	2	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	1	0	0	1	0	1	0
	BORON	1	1	4	0	0	0	2	1
	SILICON	4	5	5	7	4	5	5	6
	SODIUM	2	2	3	1	1	2	1	1
	CALCIUM	58	100	54	96	18	114	120	38
	MAGNESIUM	1	1	2	1	0	1	1	1
	PHOSPHORUS	41	167	86	307	17	116	108	618
	ZINC	2	1	1	1	1	1	1	5
	BARIUM	0	0	0	0	0	0	0	0

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	99.8	86-105	91.2	98.8	97.9	91.5	90.4
	cSt Viscosity @ 100°C	20.30	17.0-21.8	18.26	20.08	19.86	18.33	18.08
	Flashpoint in °F	475	>430	465	480	485	455	470
	Fuel %	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5
	Antifreeze %	-		-	-	-	-	-
	Water %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.3	<0.6	0.3	0.6	0.3	0.2	0.2
	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