

Report of the Month

Check out this 1959 Porsche with the deluxe chrome package.

Unfortunately that probably doesn't explain lead...

To learn more about where the elements are coming from, [click here](#).

UNIT	MAKE/MODEL: Porsche 1.6L H-4 (Air-Cooled)	OIL TYPE & GRADE: Valvoline VR1 20W/50
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 1,394 Miles
	ADDITIONAL INFO: 1959 356A Super, no full-flow oil filter	

COMMENTS In addition to high chrome (which is even higher than it was last time), we now get to talk about high lead. Lead can show bearing wear, though if you've used any leaded fuel or octane boosters, that may be where it's from. Chrome is still high, but we're hoping that this is due to the deluxe "chrome package" your car has. It's hard to be sure, and the fact that chrome increased is suspicious, but let's see how the trends look, assuming all is well on your end. Watch for low oil pressure/listen for engine noises. The TBN's good, but use this interval for now.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	1,394	UNIT / LOCATION AVERAGES	1,328			UNIVERSAL AVERAGES
	MI/HR on Unit	36,454		35,060			
	Sample Date	9/30/2019		12/17/2018			
	Make Up Oil Added	0 qts		0 qts			
ALUMINUM	2	2	2				3
CHROMIUM	27	22	17				1
IRON	6	6	6				13
COPPER	12	11	10				17
LEAD	142	91	40				24
TIN	2	1	0				0
MOLYBDENUM	1	1	0				41
NICKEL	0	0	0				0
MANGANESE	0	0	0				2
SILVER	0	0	0				0
TITANIUM	1	1	0				3
POTASSIUM	10	15	19				7
BORON	4	3	2				42
SILICON	4	4	4				7
SODIUM	385	376	367				159
CALCIUM	2183	2163	2142				1919
MAGNESIUM	23	18	13				239
PHOSPHORUS	1320	1294	1268				971
ZINC	1435	1434	1433				1127
BARIUM	1	1	0				0

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°	86.9	77-94	84.9		
	cSt Viscosity @ 100°C	17.24	14.8-19.2	16.74		
	Flashpoint in °F	390	>385	375		
	Fuel %	<0.5	<2.0	0.5		
	Antifreeze %	-	0.0	-		
	Water %	0.0	0.0	0.0		
	Insolubles %	0.3	<0.6	0.3		
	TBN	7.3	>1.0			
	TAN					
	ISO Code					

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

After his first sample, the owner writes of chrome: The previous owner, a Buick dealer in Terre Haute, Indiana, seemingly chromed everything removable on the car! This included the following, which may have a bearing on the chromium level: gas tank cap; air filter canisters; valve covers; oil filter canister top and bolt; and the oil filler assembly, top, and overflow tube. It might even have chrome cylinders, based on how low iron is. Fortunately he missed the oil dipstick! Lead is another story; if it's not from leaded fuel, then that metal shows bearing wear.