



OIL REPORT

LAB NUMBER: K87367

REPORT DATE: 1/22/2019

CODE: 63/32

UNIT ID: BRAD PENN

CLIENT ID:

PAYMENT: Prepaid

UNIT
MAKE/MODEL: Virgin 20W/50
FUEL TYPE:
ADDITIONAL INFO: Old package

OIL TYPE & GRADE: Brad Penn 20W/50
OIL USE INTERVAL:

CLIENT

COMMENTS

This is the virgin sample of Brad Penn 20W/50. As promised in the PennGrade report, both oils looked similar in testing. The elements sodium through zinc are additives, and you can see both oils utilize the same balance of one additive to another. The viscosity read in the 20W/50 range, right where it should be. The small amounts of metal won't hurt anything, nor will the trace of insolubles, which are just from light oxidation. This oil is ready for use.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil		UNIT / LOCATION AVERAGES						UNIVERSAL AVERAGES
	MI/HR on Unit								
	Sample Date	1/11/2019							
	Make Up Oil Added								
	ALUMINUM	1		1					0
	CHROMIUM	0		0					0
	IRON	2		2					1
	COPPER	0		0					0
	LEAD	0		1					0
	TIN	0		0					0
	MOLYBDENUM	0		0					80
	NICKEL	0		0					0
	MANGANESE	0		0					0
	SILVER	0		0					0
	TITANIUM	0		1					1
	POTASSIUM			1					1
	BORON	1		2					46
	SILICON	5		4					11
	SODIUM	384		403					98
	CALCIUM	1325		1436					1574
	MAGNESIUM	579		638					207
	PHOSPHORUS	1248		1339					997
	ZINC	1383		1519					1087
	BARIUM	0		0					0

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°	94.4	81-102					
	cSt Viscosity @ 100°C	19.04	15.8-21.1					
	Flashpoint in °F	415	>400					
	Fuel %	<0.5	<2.0					
	Antifreeze %	0.0	0.0					
	Water %	0.0	<0.1					
	Insolubles %	TR	<0.6					
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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