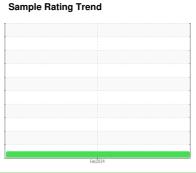


# **OIL ANALYSIS REPORT**



NORMAL



# **DODGE 27187-010**

Component

**Gasoline Engine** 

{not provided} (--- GAL)

### Recommendation

No corrective action is recommended at this time.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

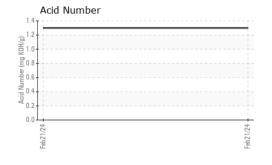
### **Fluid Condition**

The AN level is acceptable for this fluid.

		<u>-</u>		Feb 2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WCM2308079		
Sample Date		Client Info		21 Feb 2024		
Machine Age	mls	Client Info		0		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	2		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>5	<1		
Titanium	ppm	ASTM D5185m		2		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>40	7		
Lead	ppm	ASTM D5185m	>50	<1		
Copper	ppm	ASTM D5185m	>155	2		
Tin	ppm	ASTM D5185m	>10	1		
Vanadium	ppm	ASTM D5185m		1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVEC		method	limit/base	ourropt	المرسمة مناط	history2
ADDITIVES		memou	IIIIII/Dase	current	history1	HISTOLYZ
Boron	ppm	ASTM D5185m	IIIIII/Dase	<1	nistory i	
	ppm		IIIIII/Dase			
Boron		ASTM D5185m	IIIIIIIIIII	<1		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	IIIIII/Dase	<1 4		
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	<1 4 5		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	<1 4 5 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	<1 4 5 <1 45		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	<1 4 5 <1 45 48		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	<1 4 5 <1 45 48 19		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 4 5 <1 45 48 19 52		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 4 5 <1 45 48 19 52 127	   	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	<1 4 5 <1 45 48 19 52 127 current	   	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30	<1 4 5 <1 45 48 19 52 127 current	     history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30 >400 >20	<1 4 5 <1 45 48 19 52 127 current 2	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m	limit/base >30 >400 >20	<1 4 5 <1 45 48 19 52 127 current 2 25 5	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	limit/base >30 >400 >20 >4.0	<1 4 5 <1 45 48 19 52 127 current 2 25 5 <1.0	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	limit/base >30 >400 >20 >4.0 limit/base	<1 4 5 <1 45 48 19 52 127 current 2 25 5 <1.0 current	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	limit/base >30 >400 >20 >4.0 limit/base	<1 4 5 <1 45 48 19 52 127 current 2 25 5 <1.0 current 0.1	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7844	limit/base >30 >400 >20 >4.0 limit/base	<1 4 5 <1 45 48 19 52 127 current 2 25 5 <1.0 current 0.1 10.9	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m ASTM D7624 *ASTM D7624 *ASTM D7415 method	limit/base >30 >400 >20 >4.0 limit/base >20 >30	<1 4 5 <1 48 19 52 127 current 2 25 5 <1.0 current 0.1 10.9 20.9 current	history1 history1 history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	limit/base >30 >400 >20 >4.0 limit/base >20 >30	<1 4 5 <1 45 48 19 52 127 current 2 25 5 <1.0 current 0.1 10.9 20.9	history1 history1	history2 history2



## **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG		
Free Water	scalar	*Visual		NEG		
FILLID DDODEDT	150		11 11 11			11.

13 - Ab	normal	 		 	 		
12-							
11- 10- Ab							
10 - Ab	normal						
9 -		 	 	 	 	 	
8							

Visc @ 100°C	cSt	ASTM D445	8.8	
GRAPHS				
Iron (ppm)			Lead (ppm)	
Severe			Severe	-
€ 300				
200 Abnormal			E 100 - Abnormal	
100				
Feb21/24		E4-21 124	reb21/244	Feb21/24
		Ġ		Teg
Aluminum (ppm	1)		Chromium (ppm)	
80 +			40 + Severe	
Abnormal			Abnormal	
40 Abnormal			10 +	
0			0	
Feb21/24		Loh 21.734	Feb 21/24	Feb21/24
Copper (ppm)		ū	Silicon (ppm)	Ľ.
300			80 Severe	
250 - Severe			60	
Abnormal			Abnormal	
50			20-	
0 44		70	0 + 5	24
Feb21/24		Earl 21.73.6	Feb21/24	Feb21/24
Viscosity @ 100	°C		Acid Number	
Abnormal			1.5 T	
12 (500) 10 Abnormal			Acid Number (mg KOH/g)	
Abnormal			na 0.5	
			Acid P	
Feb21/24		Ed. 21.73	Feb21/24	Feb21/24 -
Febž		7.45	Feb.	Feb2



Laboratory Lab Number : 06097894

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WCM2308079

Tested Unique Number : 10896124 Diagnosed

Received : 22 Feb 2024 : 26 Feb 2024

: 26 Feb 2024 - Jonathan Hester

NORTH AMERICAN WEST AUTOMOTIVE FORENSIC SERVICES

PO BOX 2220 MISSION VIEJO, CA US 92690

Test Package : MOB 2 ( Additional Tests: FuelDilution, PercentFuel ) To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: CHAD TREDWAY chad.nawest@gmail.com;northamericanwest@gmail.com

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) T: (888)491-1080 F: (949)271-2360

Report Id: NORLAD [WUSCAR] 06097894 (Generated: 02/26/2024 20:16:54) Rev: 1

Contact/Location: CHAD TREDWAY - NORLAD