ADRENALUBE: ETUDE DE CAS - DODGE CARAVAN - CASE STUDY --- AUTO-06

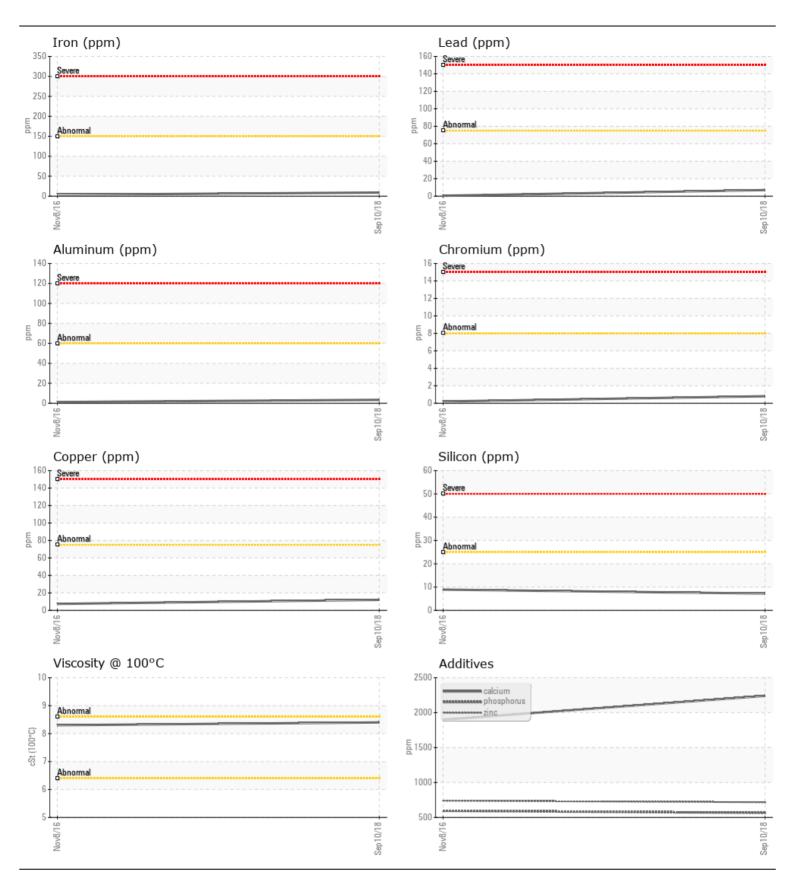


WEAR CONTAMINATION FLUID CONDITION **NORMAL NORMAL NORMAL**

Machine Id

2006 DODGE CARAVAN 16-GINC-01-001-M (S/N 1D4GP25R46B655775)

ENZOIL SUPER 5W20 (5 LTR)					#2	#1	
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number				WC112695	WC972840	
	Sample Date				10 Sep 2018	08 Nov 2016	
	Machine Age	kms			108784	95311	
	Oil Age	kms			13229	6442	
	Filter Age	kms			13229	6442	
	Oil Changed				Not Changd	Not Changd	
	Filter Changed				Not Changd	Not Changd	
	Sample Status				NORMAL	NORMAL	
VEAR	Iron	ppm	ASTM D5185	>150	9.0	3.5	
All component wear rates are normal.	Chromium	ppm	ASTM D5185	>8	0.8	0.2	
	Nickel	ppm	ASTM D5185	>5	0.1	0.1	
	Titanium	ppm	ASTM D5185		0.0	0.0	
	Silver	ppm	ASTM D5185		0.0	0.0	
	Aluminum	ppm	ASTM D5185	>60	3.4	1.2	
	Lead	ppm	ASTM D5185	>75	6.9	0.5	
	Copper	ppm	ASTM D5185		12	7.4	
	Tin	ppm	ASTM D5185	>15	0.0	0.0	
	Vanadium	ppm	ASTM D5185		0.0	0.0	
ONTAMINATION	Silicon	ppm	ASTM D5185	>25	7.2	8.9	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185	>20	0.6	0.8	
	Fuel		ASTM D3524		<1.0	<1.0	
	Glycol		ASTM D2982		NEG	NEG	
	Soot %	%	ASTM D7686		0	0	
	Nitration	Abs/.1mm	ASTM D7624	>20	11.9	8.1	
	Sulfation	Abs/.1mm	ASTM D7415	>35	24.6	21.2	
	Emulsified Water	scalar	Visual	>0.1	NEG	NEG	
LUID CONDITION	Sodium	ppm	ASTM D5185		8.3	6.0	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185		6.5	49	
	Barium	ppm	ASTM D5185		0.0	0.1	
	Molybdenum	ppm	ASTM D5185		125	125	
	Manganese	ppm	ASTM D5185		0.8	0.2	
	Magnesium	ppm	ASTM D5185		12	17	
	Calcium	ppm	ASTM D5185		2240	1899	
	Phosphorus	ppm	ASTM D5185		565	595	
	Zinc	ppm	ASTM D5185		717	739	
	Sulfur	ppm	ASTM D5185		1859	1551	
	Oxidation	Abs/.1mm	ASTM D7414	>25	18.1	10.9	
	Visc @ 40°C	cSt	ASTM D7279		48.5		
	Visc @ 100°C	cSt	ASTM D7279		8.4	8.3	
eport Id: PIELAP [WCAMIS] 02239949 (Generated: 09/18/2018 13:07:14)	Viscosity Index (VI)	Scale	ASTM D2270		149		Page 1







Laboratory Sample No. Lab Number **Unique Number**

: WC112695 : 02239949

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received Diagnosed

: 18 Sep 2018

: 18 Sep 2018

: 4747112 Diagnostician : Wes Davis Test Package : MOB 1 (Additional Tests: KV40, VI)

To discuss diagnosis or test data, contact Technical Support at 1-800-268-2131. To change component or sample information, contact Customer Service at 1-800-268-2131. 9042628 Canada Inc

3755 - E Boul Matte Brossard, QC Canada J4Y 2P4 Contact: Pierre Beauchamp support-tech@adrenalube.com T: (514)999-5546

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