

OIL ANALYSIS REPORT

Sample Rating Trend







EHT SUP-01

Component Gasoline Engine Fluid

GASOLINE ENGINE OIL SAE 5W20 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

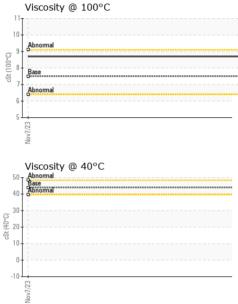
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0874358		
Sample Date		Client Info		07 Nov 2023		
Machine Age	mls	Client Info		47796		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	6		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>40	2		
Lead	ppm	ASTM D5185m	>50	<1		
Copper	ppm	ASTM D5185m	>155	2		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 75	current 26	history1	history2
	ppm ppm				history1 	
Boron		ASTM D5185m	75	26		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	75 5	26 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	75 5	26 0 148		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	75 5 100	26 0 148 1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	75 5 100 12	26 0 148 1 516		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	75 5 100 12 2100	26 0 148 1 516 1126	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	75 5 100 12 2100 650	26 0 148 1 516 1126 647	 	
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	75 5 100 12 2100 650 850	26 0 148 1 516 1126 647 790	 	
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	75 5 100 12 2100 650 850 2500	26 0 148 1 516 1126 647 790 1951		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	75 5 100 12 2100 650 850 2500	26 0 148 1 516 1126 647 790 1951 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	75 5 100 12 2100 650 850 2500 limit/base >30	26 0 148 1 516 1126 647 790 1951 <i>current</i> 14	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm 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 ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50	26 0 148 1 516 1126 647 790 1951 <u>current</u> 14 0	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50 >20	26 0 148 1 516 1126 647 790 1951 <u>current</u> 14 0 3	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50 >20	26 0 148 1 516 1126 647 790 1951 <i>current</i> 14 0 3 <i>current</i>	 history1 	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50 >20	26 0 148 1 516 1126 647 790 1951 <i>current</i> 14 0 3 <i>current</i> 0	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	75 5 100 12 2100 650 850 2500 imit/base >30 >50 >20	26 0 148 1 516 1126 647 790 1951 <i>current</i> 14 0 3 <i>current</i> 0 10.3	 history1 history1 	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	75 5 100 12 2100 650 850 2500 2500 >30 >50 20 20 imit/base >20 >30 >30	26 0 148 1 516 1126 647 790 1951 current 14 0 3 current 0 10.3 21.6	 history1 history1 history1	 history2 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	75 5 100 12 2100 650 850 2500 Imit/base >30 >50 >20 Imit/base	26 0 148 1 516 1126 647 790 1951 current 14 0 3 current 0 10.3 21.6	 history1 history1 history1	 history2 history2 history2



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			method	limit/base		history1	history2
	VISUAL						
	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		
23	Sand/Dirt	scalar scalar	*Visual *Visual	NONE NORML	NONE NORML		
Nov7/23	Appearance Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual	20.2	NEG		
				11 11 11			
	FLUID PROPER		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	7.5	8.7		
	GRAPHS						
	Ferrous Alloys						
	iron						
	8 - chromium						
	6+						
	udd						
	4						
	2						
	Nov7/23			Nov7/23			
				N			
	Non-ferrous Meta	ls					
	10 copper 1						
	8						
	tin						
	6						
	mdd						
	4						
	2						
	Nov7/23			Nov7/23			
				Nc			
	Viscosity @ 100°C	2			Base Number		
	¹¹			4.5			
	10			4.0			
	Abnormal			<u></u> ;≣3.5	-		
	J			(6) 3.5 HO 3.0			
ā	8 1000			Ĕ 2.5			
	Base		*****	g 2.0			
	7- Abnormal			9.5 6 9 9 9 9 9 9 9 9 1.5 8 9 1.0 8 9 1.0			
	<u> </u>						
	6 -			0.5	1		
	6						
	5						
	5						
	0 00/7/23			Nov7/23	Nov7/23		2 2 2
pratory	5	501 Madia	son Ave., Ca	Nov7/23	Nov7/23	Valley Waste -	
oratory ple No.	: WearCheck USA - 5 : WC0874358	Received	d :15 l	ry, NC 27513 Nov 2023	Nov7/23	662	EHT Locatio 6 Delilah Roa
	: WearCheck USA - 5 : WC0874358 : 06008059		d :151 ed :161	ry, NC 27513	Nov7/23	662	EHT Locatio



Test Package : CONST (Additional Tests: KV40, TBN) Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - 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)