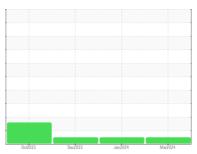


OIL ANALYSIS REPORT

Sample Rating Trend





NORMAL

Machine Id 358054

Component Gasoline Engine

Fluid PETRO CANADA SUPREME™ SYNTHETIC BLEND 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

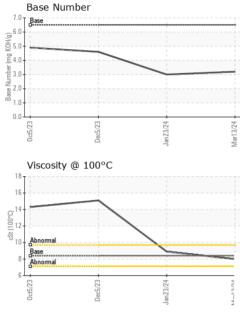
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0114159	GFL0108126	GFL0102536
Sample Date		Client Info		13 Mar 2024	23 Jan 2024	05 Dec 2023
Machine Age	mls	Client Info		347254	341229	334700
Oil Age	mls	Client Info		341229	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	15	16	19
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>5	0	<1	1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	2	3	5
Lead	ppm	ASTM D5185m	>50	0	1	<1
Copper	ppm	ASTM D5185m	>155	2	2	3
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	0 history1	<1 history2
	ppm ppm		limit/base		-	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 19	history1 18	history2 0
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 19 0	history1 18 0	history2 0 12
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 19 0 78	history1 18 0 73	history2 0 12 55
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 19 0 78 0	history1 18 0 73 <1	history2 0 12 55 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 19 0 78 0 602	history1 18 0 73 <1 587	history2 0 12 55 <1 811
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		Current 19 0 78 0 602 1094	history1 18 0 73 <1 587 961	history2 0 12 55 <1 811 910
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	770	Current 19 0 78 0 602 1094 768	history1 18 0 73 <1 587 961 747	history2 0 12 55 <1 811 910 788
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	770	current 19 0 78 0 602 1094 768 870	history1 18 0 73 <1 587 961 747 835	history2 0 12 55 <1 811 910 788 1098
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	770 2690	Current 19 0 78 0 602 1094 768 870 3435	history1 18 0 73 <1 587 961 747 835 2711	history2 0 12 55 <1 811 910 788 1098 2328
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	770 2690 limit/base	Current 19 0 78 0 602 1094 768 870 3435 Current	history1 18 0 73 <1 587 961 747 835 2711 history1	history2 0 12 55 <1 811 910 788 1098 2328 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	770 2690 limit/base >30	current 19 0 78 0 602 1094 768 870 3435 current 24	history1 18 0 73 <1 587 961 747 835 2711 history1 21	history2 0 12 55 <1 811 910 788 1098 2328 history2 16
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	770 2690 limit/base >30 >400	current 19 0 78 0 602 1094 768 870 3435 current 24 37	history1 18 0 73 <1 587 961 747 835 2711 history1 21 32	history2 0 12 55 <1 811 910 788 1098 2328 history2 16 24
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	770 2690 limit/base >30 >400 >20	19 0 78 0 602 1094 768 870 3435 current 24 37 4	history1 18 0 73 <1 587 961 747 835 2711 history1 21 32 3	history2 0 12 55 <1 811 910 788 1098 2328 history2 16 24 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	770 2690 limit/base >30 >400 >20	19 0 78 0 602 1094 768 870 3435 current 24 37 4 current	history1 18 0 73 <1 587 961 747 835 2711 history1 21 32 3 history1	history2 0 12 55 <1 811 910 788 1098 2328 history2 16 24 5 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	770 2690 limit/base >30 >400 >20 limit/base	current 19 0 78 0 602 1094 768 870 3435 current 24 37 4 current 0.1	history1 18 0 73 <1 587 961 747 835 2711 history1 21 32 3 history1 0	history2 0 12 55 <1 811 910 788 1098 2328 history2 16 24 5 history2 0.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	770 2690 limit/base >30 >400 >20 limit/base	current 19 0 78 0 602 1094 768 870 3435 current 24 37 4 current 0.1 10.7	history1 18 0 73 <1 587 961 747 835 2711 history1 21 32 3 history1 0 11.2	history2 0 12 55 <1 811 910 788 1098 2328 history2 16 24 5 history2 0.1 13.3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	770 2690 1imit/base >30 >400 >20 Iimit/base >20 30 >20 >30 >30	19 0 78 0 602 1094 768 870 3435 current 24 37 4 current 0.1 10.7 24.2	history1 18 0 73 <1 587 961 747 835 2711 history1 21 32 3 history1 0 11.2 26.2	history2 0 12 55 <1 811 910 788 1098 2328 history2 16 24 5 history2 0.1 13.3 28.2



OIL ANALYSIS REPORT

VISUAL



		VISUAL								
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE		
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE		
		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE		
		Silt	scalar	*Visual	NONE	NONE	NONE	NONE		
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE		
		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE		
Jan 23/24 •	Mar13/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML		
Jan2	Marl	Odor	scalar	*Visual	NORML	NORML	NORML	NORML		
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG		
		Free Water	scalar	*Visual		NEG	NEG	NEG		
		FLUID PROP	ERTIES	method	limit/base	current	history1	history2		
		Visc @ 100°C	cSt	ASTM D445	8.4	8.0	8.9	15.1		
		GRAPHS								
		Ferrous Alloys								
- +2		25 jiron								
Jan23/24	E	20 - nickel								
Ϋ́,	NA NA	15								
		15- E								
		10-								
		5								
			************		11111.amp					
		0ct5/23 Dec5/23		Jan 23/24	Mar13/24					
				Jan	Mar					
		Non-ferrous Met	als							
		10 copper								
		8 - sessesses lead								
		udd								
		4								
		2		ALL PROPERTY.						
		0	and a line way to be a second	and a standard and and and and	Personal P Personal Personal P					
		0ct5/23 Dec5/23		Jan 23/24	Mar13/24					
				Jan	Mar					
		Viscosity @ 100	°C			Base Number				
					7.0	Base				
		16			6.0 ©					
		14			H 5.0	0	~			
		(J-001) 12- 753			(0) 5.0 HOX buy and Way Buy and Way Solution Seg	D				
					quanta 3.0	D -				
		10 - Abnormal Base			2 82 2.0	D				
		Abnormal			1.0					
		6			0.0			-		
		0ct5/23 Dec5/23		Jan 23/24	Mar13/24	0ct5/23	Dec5/23	Jan 23/27		
		Dec		Jan	Mar	ŏ	a j	Jan 23/24		
	Laboratory	·WearCheck USA - F	501 Madieo	n Ave Carv	NC 27513	GEI En	vironmental - 8'	87 - Harrison		
	Sample No.	: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0114159 Received : 01 Apr 2024 GFL Environmental - 837 - Harri 22820 S State Rol								
AB	Lab Number									
TTED	Unique Number	: 10954942	Diagr			024 Harrisonville, M 24 - Wes Davis US 6470				
RATORY			: FLEET Contact: JOHNNY							
L2367	Test Package	: FLEET						DHNNY PERE ez@gflenv.co		

Submitted By: JEREMY BROWN