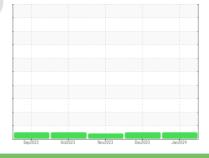


## **OIL ANALYSIS REPORT**

Sample Rating Trend







45 Component Natural Gas Engine Fluid PETRO CANADA SENTRON LD 3000 (--- GAL)

### DIAGNOSIS

Machine Id

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

#### Fluid Condition

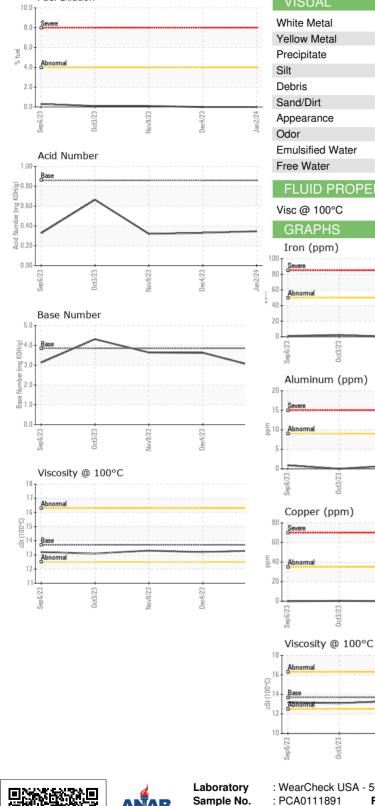
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

	l history2
Sample Number Client Info PCA0111891 PCA011192	29 PCA0111925
Sample Date Client Info 02 Jan 2024 04 Dec 2023	3 09 Nov 2023
Machine Age hrs Client Info 95114 94419	98030
Oil Age hrs Client Info 4305 3610	3010
Oil Changed Client Info Changed Not Changed	Not Changd
Sample Status NORMAL NORMAL	ABNORMAL
CONTAMINATION method limit/base current history1	l history2
Water WC Method >0.1 NEG NEG	NEG
WEAR METALS method limit/base current history1	l history2
Iron ppm ASTM D5185m >50 <1 0	0
Chromium ppm ASTM D5185m >4 0 0	0
<b>Nickel</b> ppm ASTM D5185m >2 <b>0</b> 0	0
Titanium ppm ASTM D5185m 0 0	0
Silver ppm ASTM D5185m >3 0 0	0
Aluminum ppm ASTM D5185m >9 2 <1	<1
Lead ppm ASTM D5185m >30 0 0	0
Copper ppm ASTM D5185m >35 <1	0
Tin ppm ASTM D5185m >4 0 0	<1
Vanadium ppm ASTM D5185m 0 0	0
Cadmium ppm ASTM D5185m 0 0	0
ADDITIVES method limit/base current history1	l history2
Boron ppm ASTM D5185m 5 0 0	0
Barium ppm ASTM D5185m 1 0 0	0
Molybdenum ppm ASTM D5185m 2 <1	0
Manganese ppm ASTM D5185m 1 0 0	0
Manganese ppm ASTM D5185m 1 0 0   Magnesium ppm ASTM D5185m 5 9 11	0 9
Magnesium ppm ASTM D5185m 5 9 11	9
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294	9 1284
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285	9 1284 290
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358	9 1284 290 352 2373
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387	9 1284 290 352 2373
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1	9 1284 290 352 2373 history2
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1	9 1284 290 352 2373 history2 1
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >+100 2 1	9 1284 290 352 2373 history2 1 0
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >20 1 0	9 1284 290 352 2373 history2 1 0 0 0 0
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >20 1 0   Potassium ppm ASTM D5185m >20 1 0	9 1284 290 352 2373 history2 1 0 0 0 0
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >20 0 0   Potassium ppm ASTM D5185m >20 1 0   Fuel % ASTM D5185m >20 1 0   Fuel % ASTM D5185m >20 1 0	9 1284 290 352 2373 history2 1 0 0 0 0 0.1 0.1 history2
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >20 1 0   Potassium ppm ASTM D5185m >20 1 0   Fuel % ASTM D5185m >20 1 0   INFRA-RED method limit/base current history1   Soot % % *ASTM D7844 0 0	9 1284 290 352 2373 history2 1 0 0 0.1 history2 0
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >20 1 0   Potassium ppm ASTM D5185m >20 1 0   Fuel % ASTM D5185m >20 1 0   Soot % % *ASTM D7844 0 0 0   Nitration Abs/cm *ASTM D7624 >20 4.0 3.9	9 1284 290 352 2373 history2 1 0 0 0.1 0.1 history2 0 3.9 14.5
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >+20 1 0   Potassium ppm ASTM D5185m >20 1 0   Fuel % ASTM D5185m >20 1 0   Sootown ppm ASTM D5185m >20 0 0   INFRA-RED method limit/base current history1   Soot % % *ASTM D7644 0 0 0   Nitration	9 1284 290 352 2373 history2 1 0 0 0.1 0.1 history2 0 3.9 14.5
Magnesium ppm ASTM D5185m 5 9 11   Calcium ppm ASTM D5185m 1220 1358 1294   Phosphorus ppm ASTM D5185m 298 319 285   Zinc ppm ASTM D5185m 350 348 358   Sulfur ppm ASTM D5185m 1995 2366 2387   CONTAMINANTS method limit/base current history1   Silicon ppm ASTM D5185m >+100 2 1   Sodium ppm ASTM D5185m >+20 1 0   Potassium ppm ASTM D5185m >20 1 0   Fuel % ASTM D5185m >20 1 0   Soot % % *ASTM D5185m >20 0 0.0   INFRA-RED method limit/base current history1   Soot % % *ASTM D7844 0 0 0   Nitration	9 1284 290 352 2373 history2 1 0 0 0.1 history2 0 3.9 14.5 history2

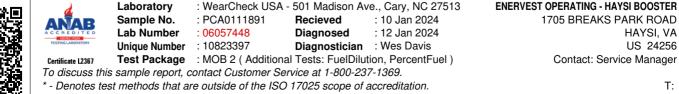


Fuel Dilution

# **OIL ANALYSIS REPORT**



SUAL		method	limit/base	current	history1	history2
e Metal	scalar	*Visual	NONE	NONE	NONE	NONE
w Metal	scalar	*Visual	NONE	NONE	NONE	NONE
pitate	scalar	*Visual	NONE	NONE	NONE	NONE
	scalar	*Visual	NONE	NONE	NONE	NONE
is	scalar	*Visual	NONE	NONE	NONE	🔺 MODER
l/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
arance	scalar	*Visual	NORML	NORML	NORML	NORML
	scalar	*Visual	NORML	NORML	NORML	NORML
sified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Water	scalar	*Visual		NEG	NEG	NEG
JID PROPE	RTIES	method	limit/base	current	history1	history2
@ 100°C	cSt	ASTM D445	13.7	13.3	13.2	13.3
APHS						
n (ppm)			00	Lead (ppm)		
e			60	0		
			40			
rmal			<u>특</u> 30		1	
			20	1		
			0			
0ct3/23	Vov9/23	Dec4/23	Jan 2/24	Sep6/23 0ct3/23	Nov9/23	Dec4/23
ő	No.	De	Jai	Oc Se	Nor	De
minum (ppm)			-	Chromium (pj	om)	
		1	8			
e			6	1	1	
rmal			<u></u> 4	Abnormal		-   
			2	-	1	
0ct3/23 +	Nav9/23 -	Dec4/23 -	Jan2/24	Sep6/23	Nov9/23 -	Dec4/23 .
Oct	Nov	Dec	Jan	Sep	Nov	Dec
per (ppm)			200	Silicon (ppm)		
e	1		200	<b>U</b>		
			150			· · · · · · · · · · · · · · · · · · ·
rmal			튭 100	Abnormal	1	1
			50			
			0			
0ct3/23	Nov9/23	Dec4/23	Jan 2/24	Sep6/23 0ct3/23	Nov9/23	Dec4/23
		De	P P		Na	Ď
osity @ 100°C			5.0	Base Number		
rmal			(B)HO 4.0	Base		
			Ĕ 3.0			
mal			(0)HOX HOX Bu: Jao Gunna 2.0 agunna 3.0 a 3.0 agunna 3.0 agunna 3.0 a 3.0 agunna 3.0 a 3.0 a 3.0 a 3.0 a 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	l		
			N 1.0	1		
			0.0			
0ct3/23	Nov9/23	Dec4/23	Jan2/24	Sep6/23 0ct3/23	Nov9/23	Dec4/23
0	Nc	Dě	5 L	ã ō	Nc	õ



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)