

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id Watkins 1

Component **Natural Gas Engine** 

PETRO CANADA SENTRON LD 3000 (--- GAL

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### 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.

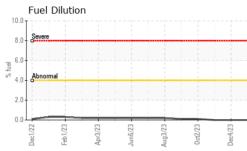
#### Fluid Condition

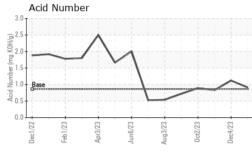
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

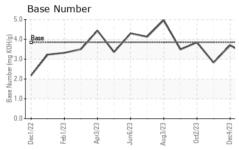
DN method Client Info Client Info Client Info Client Info Client Info Client Info WC Method WC Method ASTM D5185r ASTM D5185r	b b b b c c c c c c c c c c c c c c c c	PCA0103426 02 Jan 2024 99972 4575 Not Changd NORMAL Current NEG	history1 PCA0111948 04 Dec 2023 99277 3880 Not Changd NORMAL history1 NEG history1 2 2 <1	history2 PCA0103431 01 Nov 2023 98422 3025 Not Changd NORMAL NORMAL history2 NEG history2
Client Info Client Info Client Info Client Info Client Info WC Method WC Method ASTM D5185r ASTM D5185r	b) b) c) c) c) c) c) c) c) c) c) c	PCA0103426 02 Jan 2024 99972 4575 Not Changd NORMAL Current NEG 0 current 5 5 < 1	PCA0111948 04 Dec 2023 99277 3880 Not Changd NORMAL <b>history1</b> NEG history1 2 2 <1	PCA0103431 01 Nov 2023 98422 3025 Not Changd NORMAL history2 NEG history2
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Client Info Client Info Client Info Client Info Client Info WC Method WC Method ASTM D5185r ASTM D5185r	b) b) c) c) c) c) c) c) c) c) c) c	PCA0103426 02 Jan 2024 99972 4575 Not Changd NORMAL Current NEG 0 current 5 5 < 1	PCA0111948 04 Dec 2023 99277 3880 Not Changd NORMAL <b>history1</b> NEG history1 2 2 <1	PCA0103431 01 Nov 2023 98422 3025 Not Changd NORMAL history2 NEG history2
Client Info Client Info Client Info Client Info Client Info WC Method WC Method ASTM D5185r ASTM D5185r	b b c c c c c c c c c c c c c	02 Jan 2024 99972 4575 Not Changd NORMAL Current NEG Current 5 5 <1	04 Dec 2023 99277 3880 Not Changd NORMAL history1 NEG history1 2 2 <1	01 Nov 2023 98422 3025 Not Changd NORMAL history2 NEG history2
Client Info Client Info Client Info Client Info WC Method WC Method ASTM D5185r ASTM D5185r	b b b c limit/base n b b c c c c c c c c c c c c c c c c c	99972 4575 Not Changd NORMAL Current NEG Current 5 < 1	99277 3880 Not Changd NORMAL history1 NEG history1 2 <1	98422 3025 Not Changd NORMAL history2 NEG history2
Client Info Client Info Method WC Method ASTM D5185r ASTM D5185r ASTM D5185r	limit/base d >0.1 limit/base n >50 n >4 n >2 n	4575 Not Changd NORMAL Current NEG Current 5 < 1	3880 Not Changd NORMAL history1 NEG history1 2 <1	3025 Not Changd NORMAL history2 NEG history2
Client Info method WC Method ASTM D5185r ASTM D5185r ASTM D5185r	limit/base d >0.1 limit/base n >50 n >4 n >2 n	Not Changd NORMAL Current NEG Current 5 <1	Not Changd NORMAL history1 NEG history1 2 <1	Not Changd NORMAL history2 NEG history2
method WC Method Method ASTM D5185r ASTM D5185r ASTM D5185r	limit/base d >0.1 limit/base n >50 n >4 n >2 n	NORMAL Current NEG Current 5 <1	NORMAL history1 NEG history1 2 <1	NORMAL history2 NEG history2
WC Method method ASTM D5185r ASTM D5185r ASTM D5185r	d >0.1 limit/base n >50 n >4 n >2 n	NEG current 5 <1	NEG history1 2 <1	NEG history2
Method ASTM D5185r ASTM D5185r ASTM D5185r	limit/base n >50 n >4 n >2 n	current 5 <1	history1 2 <1	history2
ASTM D5185r ASTM D5185r ASTM D5185r	n >50 n >4 n >2 n	5 <1	2 <1	
ASTM D5185r ASTM D5185r	n >4 n >2 n	<1	<1	4
ASTM D5185r ASTM D5185r	n >2			
ASTM D5185r	n >2	0		<1
			0	0
ASTM D5185r	n >3	0	0	0
ASTM D5185r		0	0	0
ASTM D5185r	n >9	2	<1	<1
ASTM D5185r	n >30	<1	0	<1
ASTM D5185r	n >35	1	0	0
ASTM D5185r	n >4	0	0	<1
ASTM D5185r	n	0	0	0
ASTM D5185r	n	0	0	0
method	limit/base	e current	history1	history2
ASTM D5185r	n 5	0	0	0
ASTM D5185r	n 1	0	0	0
ASTM D5185r	n 2	1	0	0
ASTM D5185r	n 1	0	<1	<1
ASTM D5185r	n 5	13	16	13
ASTM D5185r	n 1220	1532	1485	1466
ASTM D5185r		325	290	279
ASTM D5185r		357	373	360
ASTM D5185r		2774	2629	2549
method	limit/base		history1	history2
ACTM DETCE		6	7	10
		0	0	<1
ASTM D5185r		3	<1	1
ASTM D5185r ASTM D5185r		0.0	0.0	0.0
ASTM D5185r ASTM D5185r ASTM D352	limit/base		history1	history2
ASTM D5185r ASTM D5185r ASTM D352 method	л	0	0	0
ASTM D5185r ASTM D5185r ASTM D352 Method *ASTM D784				5.0 17.1
ASTM D5185r ASTM D5185r ASTM D352 method *ASTM D784 rm *ASTM D762	4 >20	17.0		history2
ASTM D5185r ASTM D5185r ASTM D352 <b>method</b> *ASTM D784 cm *ASTM D784 *ASTM D784	4 >20 5 >30	ourrent	- History F	
ASTM D5185r ASTM D5185r ASTM D352 method *ASTM D784 m *ASTM D762 mm *ASTM D761 DN method	4 >20 5 >30 limit/base		10 -	10.5 0.83
ASTM D5185r ASTM D5185r ASTM D352 *ASTM D352 *ASTM D784 *ASTM D784 *ASTM D784 *ASTM D741	4 >20 5 >30 limit/base 4 >25	11.2	10.8	0.00
1	ASTN DIO4		mm *ASTM D7415 >30 17.6	mm *ASTM D7415 >30 <b>17.6</b> 17.3 ON method limit/base current history1

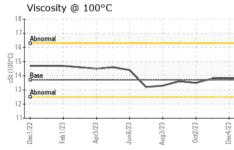


# **OIL ANALYSIS REPORT**









	VISUAL		mathad	limit/hoor	~	ourroat	Ь	latan	а	bio	torul	
	VISUAL		method	limit/base	e	current	ri	istory	1		tory2	
	White Metal	scalar	*Visual	NONE	I	NONE		DNE		NON	IE	
	Yellow Metal	scalar	*Visual	NONE	I	NONE	NC	DNE		NON	IE	
	Precipitate	scalar	*Visual	NONE	I	NONE	NC	DNE		NON	IE	
	Silt	scalar	*Visual	NONE	I	NONE	NC	NONE		NON	NONE	
	Debris	scalar	*Visual	NONE	I	NONE	NC	DNE		NONE		
	Sand/Dirt	scalar	*Visual	NONE	I	NONE	NC	DNE		NON	IE	
0ct2/23 - Dec4/23 -	Appearance	scalar	*Visual	NORML		NORML	NC	RML		NOF	ML	
Dec	Odor	scalar	*Visual	NORML		NORML	NC	RML		NOF	ML	
	Emulsified Water	scalar	*Visual	>0.1		NEG	NE	G		NEG		
	Free Water	scalar	*Visual			NEG	NE			NEG		
				11 11 11	_		_					
	FLUID PROPE		method	limit/base		current		istory	'1		tory2	
	Visc @ 100°C	cSt	ASTM D445	13.7	-	13.8	13.	.8		13.8		
	GRAPHS											
	Iron (ppm)				60 T Se	ead (ppm)						
23-	80 Severe				50 -							
0ct2/23 Dec4/23	60 Abaamal				40	onormal						
- - 	Abitolitia			la	2	pholimai						
	20 -				20							
	0			-	"L							
	Dec1/22 Feb1/23 Apr3/23	Jun6/23 -	-ugs/23	Dec4/23	Dec1/22	Feb1/23	Apr3/23	Jun6/23	Aug3/23	0ct2/23	Dec4/23	
	Dec Fet	Jur	20	Dec	Dec	Fer	Ap .	Jur	Aug	00	Dec	
	Aluminum (ppm)				C	nromium (	(ppm)					
	20				<sup>8</sup>							
	15 - Severe				6 - Se	evere		+ +				
	10 - Abnormal				ud 4 - A	onormal	1	<u> </u>	-			
0ct2/23												
0				-	2			~				
		23	23 23	23	52	23			23	23	23	
	Dec1/22 Feb1/23 Apr3/23	Jun6/23	oct2/23	Dec4/23	Dec1/22	Feb1/23	Apr3/23	Jun6/23	Aug3/23	0ct2/23	Dec4/23	
	Copper (ppm)				Si	licon (ppm	1)					
	<sup>80</sup> Severe			1		were	• •					
	60				150							
	40 - Abnormal			E	100 -	onormal						
	T			d								
23	20				50							
0ct2/23			3 63	m	0					en .		
	Dec1/22 Feb1/23 Apr3/23	Jun6/23	-ugə/23 0ct2/23	Dec4/23	Dec1/22	Feb 1/23	Apr3/23	Jun6/23	Aug3/23	0ct2/23	Dec4/23	
	Viscosity @ 100°C		r U					~	A	0		
	VISCOSILY @ 100°C				ase Numb	Number						
	Abnormal			Base Number (mg KOH/g)	4.0 B	ase		$\sim$	$\Delta$			
				(mg k	3.0	$\sim$	$\sim$			$\sim$	$\wedge$	
10000 ti	Abnormal	1		mber	2.0							
	12			se Nu	1.0							
	10			+	0.0				_			
	Dec1/22 Feb1/23 Apr3/23	Jun6/23	-ugə/23 0ct2/23	Dec4/23	Dec1/22	Feb1/23	Apr3/23	Jun6/23	Aug3/23	0ct2/23	Dec4/23	
	Ap Ap	٦٢	10	Dé	De	Е	A,	٦٢	Au	Õ	De	
Laboratory	· MoorChook LICA	01 Made	con Ava Ca	NC 975	12	ENE	RVEST	חשם	A TIN	G _ \//A	тиме	
Laboratory Sample No.	: WearCheck USA - 5 : PCA0103426	Recieved		iry, NC 275 Jan 2024	13	ENE	3896 SI					
Lab Number		Diagnos		Jan 2024 Jan 2024			3000 00	SINGL			DY, VA	
Unique Number	: 10823406	Diagnost	t <b>ician</b> : Sea	an Felton							24614	
Test Package	: MOB 2 (Additional				)		С	ontac	ct: Se	rvice M	anager	

 Certificate 12367
 Test Package
 : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

 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)