

PROBLEM SUMMARY

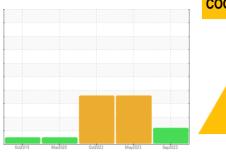
Sample Rating Trend



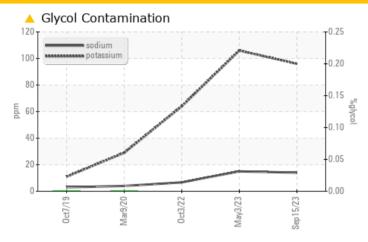
Watkins Block Truck Shop Omaha 64 [Watkins Block Truck Shop Omaha]

Natural Gas Engine

PETRO CANADA SUPREME 5W30 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC T	EST RE	SULTS				
Sample Status				MARGINAL	ABNORMAL	ABNORMAL
Potassium	ppm	ASTM D5185m	>20	4 96	△ 106	<u></u> 64

Customer Id: WATOMATS Sample No.: SBP0005006 Lab Number: 05958977 Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 ihester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.
Resample			?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

03 May 2023 Diag: Don Baldridge

COOL CHEMICALS



We advise that you check for possible coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.



03 Oct 2022 Diag: Jonathan Hester

COOL CHEMICALS



We advise that you check for possible coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.



09 Mar 2020 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.





OIL ANALYSIS REPORT

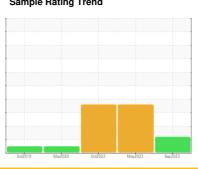
Sample Rating Trend

COOL CHEMICALS

Watkins Block Truck Shop Omaha 64 [Watkins Block Truck Shop Omaha]

Natural Gas Engine

PETRO CANADA SUPREME 5W30 (--- GAL)





DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

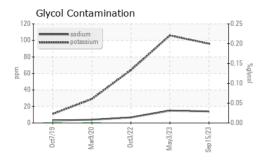
Fluid Condition

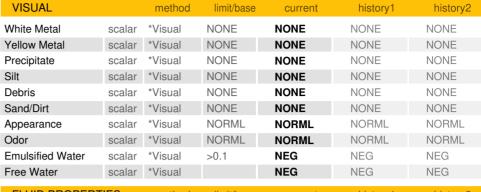
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

-)		Oct2019	Mar2020	Oct2022 May2023	Sep2023	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0005006	SBP0002223	SBP0001659
Sample Date		Client Info		15 Sep 2023	03 May 2023	03 Oct 2022
Machine Age	hrs	Client Info		7684	7350	6987
Oil Age	hrs	Client Info		328	363	309
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	28	▲ 73	▲ 63
Chromium	ppm	ASTM D5185m	>4	5	<u> </u>	<u>12</u>
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	0	<u>17</u>	<u>11</u>
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>35	1	<1	1
Tin	ppm	ASTM D5185m	>4	<1	1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	186	78	19	27
Barium	ppm	ASTM D5185m	<1	0	0	0
Molybdenum	ppm	ASTM D5185m	79	79	169	156
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	578	554	551	502
Calcium	ppm	ASTM D5185m	1002	1321	1478	1401
Phosphorus	ppm	ASTM D5185m	745	701	725	666
Zinc	ppm	ASTM D5185m	837	867	887	829
Sulfur	ppm	ASTM D5185m	2502	3500	2486	2482
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	7	23	28
Sodium	ppm	ASTM D5185m		14	15	7
Potassium	ppm	ASTM D5185m	>20	<u>^</u> 96	<u> </u>	<u></u> 64
Chlorine	ppm	ASTM D5185m				
Glycol	%	*ASTM D2982				
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.5	8.5	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	16.9	20.5
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
FLUID DEGRADA Oxidation	Abs/.1mm	method *ASTM D7414	limit/base >25	current 11.0	history1 10.0	history2 11.2



OIL ANALYSIS REPORT



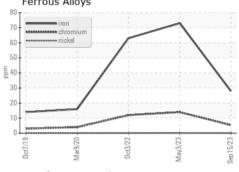


Abnormal				
13+	:			
12 - Base				
11				
Abnormal				
9				
0ct7/19	-	2-	m	
=	Mar9/2)ct3/2	May3/2	

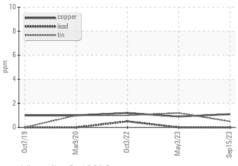


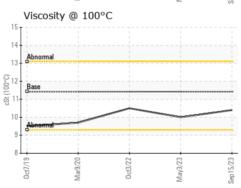
Glycol Contamination 120 0.25 0.20 0.15 0.10 0.05 0.00 Sep15/23

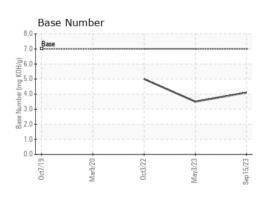
GRAPHS Ferrous Alloys















Laboratory Sample No. Lab Number

Unique Number

: SBP0005006 : 05958977 : 10660190

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Sep 2023

Diagnosed : 26 Sep 2023 : Jonathan Hester Diagnostician

Test Package : FLEET (Additional Tests: Glycol) 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)

Watkins Block Truck Shop Omaha - 602227

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