

Machine Id  
**DAEWOO TOWERSIDE PG1**

Component  
**Propane Engine**

Fluid  
**PETRO CANADA SENTRON LD 5000 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

**Wear**

All component wear rates are normal.

**Contamination**

There is a moderate concentration of water present in the oil.

**Fluid Condition**

The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PC0073810</b>	PC0073694	---
Sample Date	Client Info			<b>27 Oct 2023</b>	28 Jul 2023	---
Machine Age	hrs	Client Info		<b>11485</b>	10835	---
Oil Age	hrs	Client Info		<b>640</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>29</b>	34	---
Chromium	ppm	ASTM D5185(m)	>25	<b>5</b>	6	---
Nickel	ppm	ASTM D5185(m)	>5	<b>1</b>	1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>6</b>	5	---
Lead	ppm	ASTM D5185(m)	>25	<b>3</b>	4	---
Copper	ppm	ASTM D5185(m)	>35	<b>6</b>	17	---
Tin	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

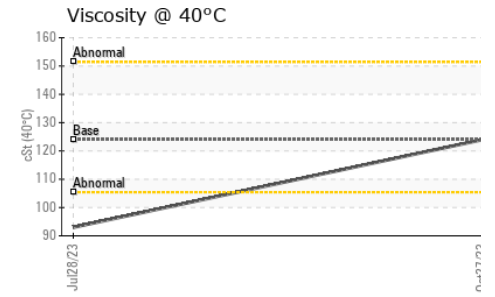
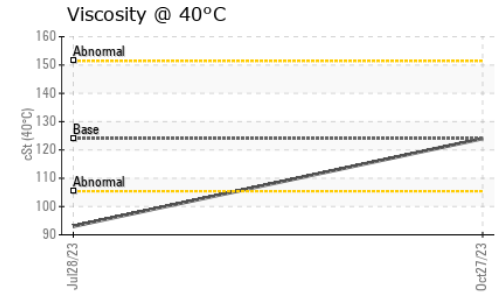
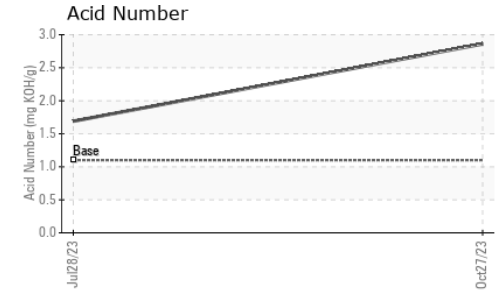
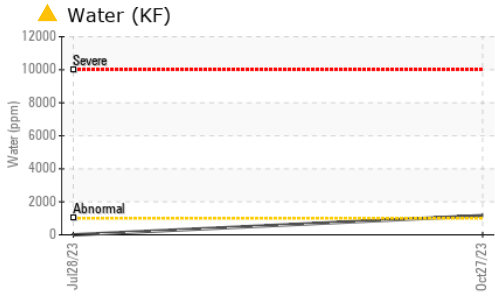
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	<b>&lt;1</b>	1	---
Barium	ppm	ASTM D5185(m)	3	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	---
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	1	---
Magnesium	ppm	ASTM D5185(m)	4	<b>10</b>	5	---
Calcium	ppm	ASTM D5185(m)	1727	<b>2013</b>	1223	---
Phosphorus	ppm	ASTM D5185(m)	272	<b>346</b>	629	---
Zinc	ppm	ASTM D5185(m)	333	<b>414</b>	751	---
Sulfur	ppm	ASTM D5185(m)	3415	<b>3011</b>	2331	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	<b>3</b>	3	---
Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	---
Water	%	ASTM D6304*	>0.1	<b>▲ 0.116</b>	---	---
ppm Water	ppm	ASTM D6304*	>1000	<b>▲ 1162</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		<b>0</b>	0	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.5</b>	5.1	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.6</b>	16.1	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>12.9</b>	8.8	---
Acid Number (AN)	mg KOH/g	ASTM D974*	1.1	<b>2.86</b>	1.69	---

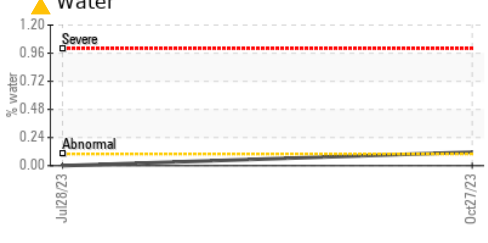
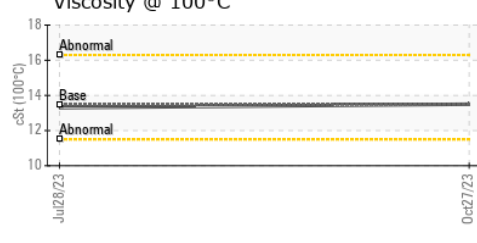
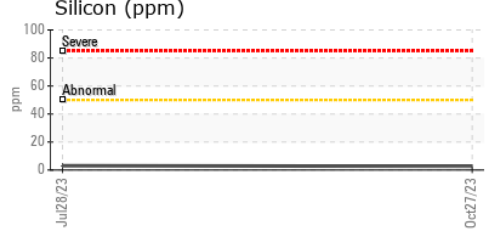
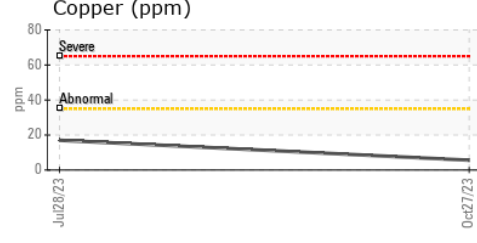
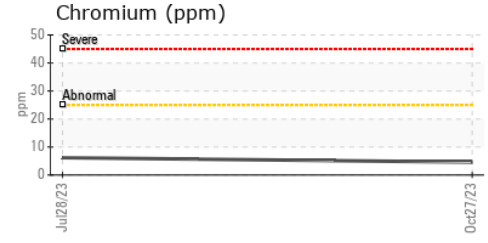
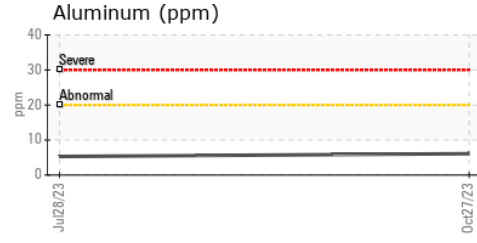
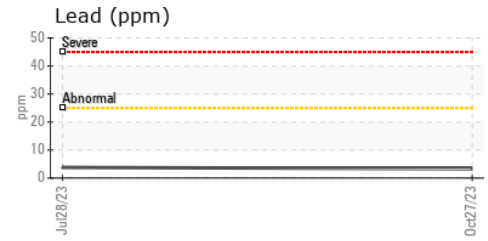
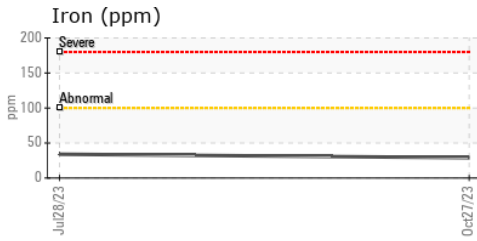
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---
Free Water	scalar	Visual*	▲.2%	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	124	93.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	13.48	13.3	---
Viscosity Index (VI)	Scale	ASTM D2270*	104	142	---

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0073810 **Received** : 09 Feb 2024  
**Lab Number** : 02614625 **Tested** : 12 Feb 2024  
**Unique Number** : 5723720 **Diagnosed** : 13 Feb 2024 - Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: KF, KV40, TAN Man, VI, Visual )

**Martin Energy Group Canada**  
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 Contact: J Wagler  
 jwagler@martinenergygroup.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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F: