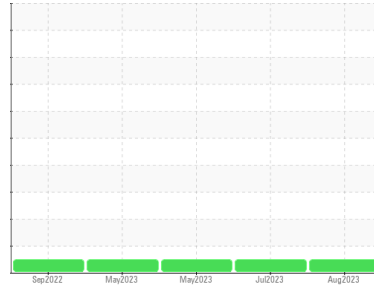


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**Liberty 2**

Component  
**Natural Gas Engine**

Fluid  
**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

Fuel content negligible. 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0091318</b>	PCA0092168	PCA0092166
Sample Date	Client Info		<b>04 Aug 2023</b>	10 Jul 2023	05 May 2023
Machine Age	hrs	Client Info	<b>89714</b>	120715	88339
Oil Age	hrs	Client Info	<b>2406</b>	2842	1031
Oil Changed		Client Info	<b>N/A</b>	N/A	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>&lt;1</b>	2	2
Chromium	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>&lt;1</b>	1	0
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 2	<b>&lt;1</b>	2	1
Manganese	ppm	ASTM D5185m 1	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 5	<b>11</b>	17	11
Calcium	ppm	ASTM D5185m 1220	<b>1327</b>	1328	1263
Phosphorus	ppm	ASTM D5185m 298	<b>281</b>	296	287
Zinc	ppm	ASTM D5185m 350	<b>344</b>	362	351
Sulfur	ppm	ASTM D5185m 1995	<b>2735</b>	3011	2847

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>4</b>	5	6
Sodium	ppm	ASTM D5185m	<b>3</b>	3	7
Potassium	ppm	ASTM D5185m >20	<b>2</b>	3	8
Fuel	%	ASTM D3524 >4.0	<b>0.3</b>	0.3	0.3

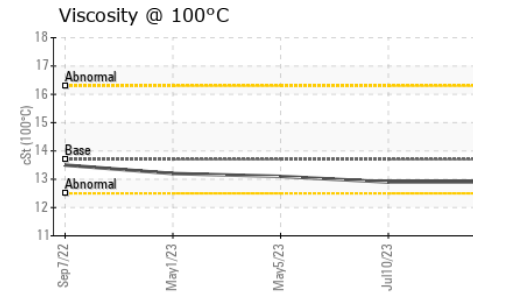
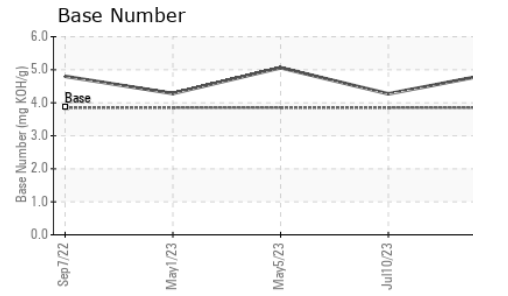
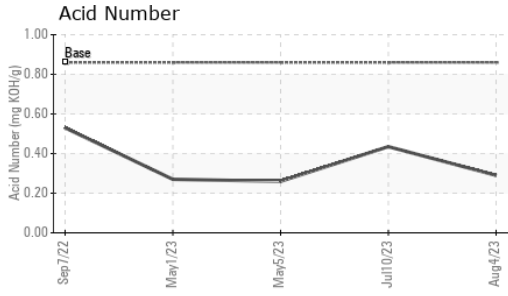
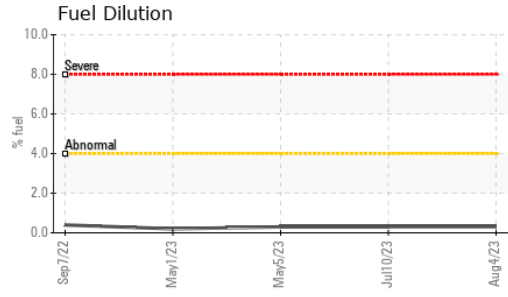
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>3.1</b>	3.2	3.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>13.2</b>	13.6	13.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>7.0</b>	7.3	7.2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.86	<b>0.29</b>	0.435	0.26
Base Number (BN)	mg KOH/g	ASTM D2896 3.85	<b>4.90</b>	4.27	5.06

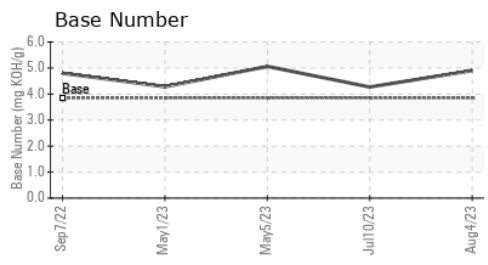
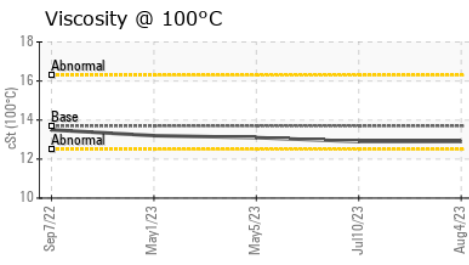
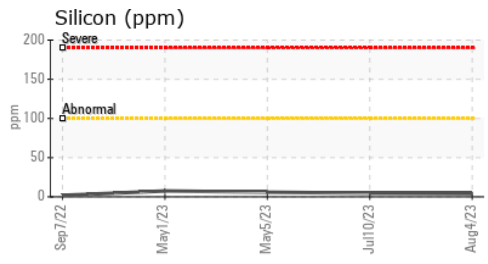
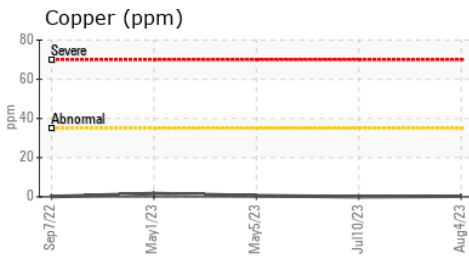
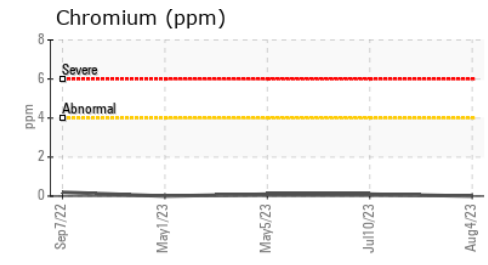
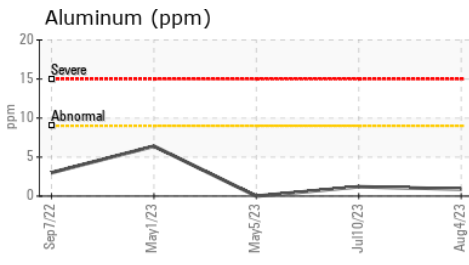
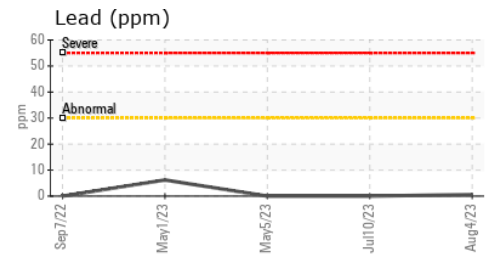
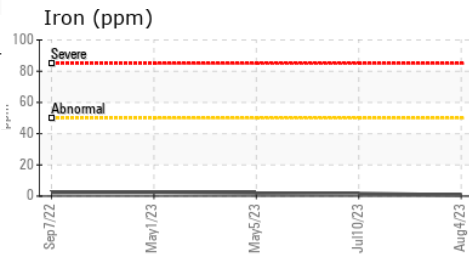
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.7	12.9	12.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0091318 **Received** : 11 Aug 2023  
**Lab Number** : 05922906 **Diagnosed** : 14 Aug 2023  
**Unique Number** : 10602853 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**ENERVEST OPERATING - LIBERTY**  
 318 SINGLETON ROAD  
 NORA, VA  
 US 24272  
 Contact: Service Manager

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)

T:  
F: