

Area  
**LONGHORN C**  
Machine Id  
**LONGHORN C (S/N 1645612)**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA SENTRON LD 3000 (190 GAL)**

**RECOMMENDATION**

We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0096592</b>	PCA0096593	PCA0096594
Sample Date		Client Info		<b>18 Mar 2024</b>	05 Mar 2024	19 Feb 2024
Machine Age	hrs	Client Info		<b>9233</b>	8949	8597
Oil Age	hrs	Client Info		<b>3390</b>	3106	2754
Filter Age	hrs	Client Info		<b>1232</b>	948	596
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>10</b>	8	7
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	3	1
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185m	>35	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

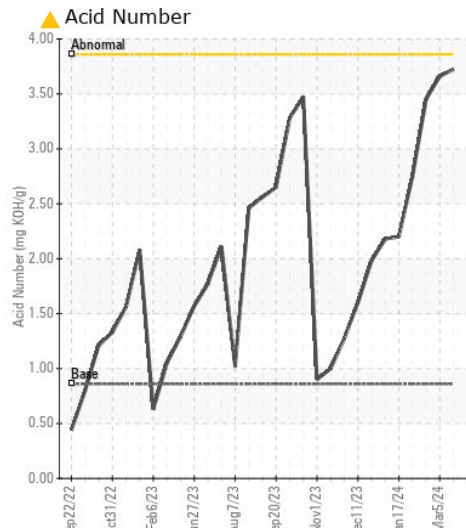
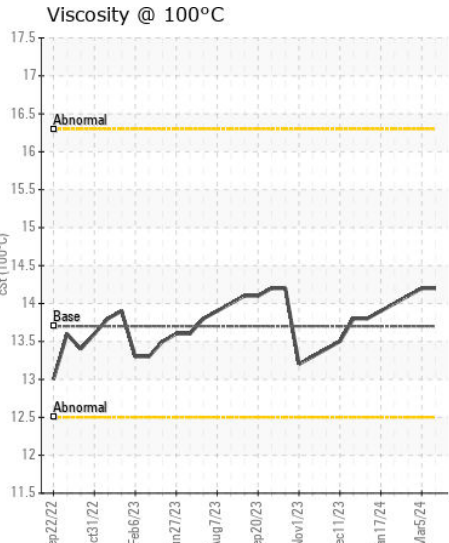
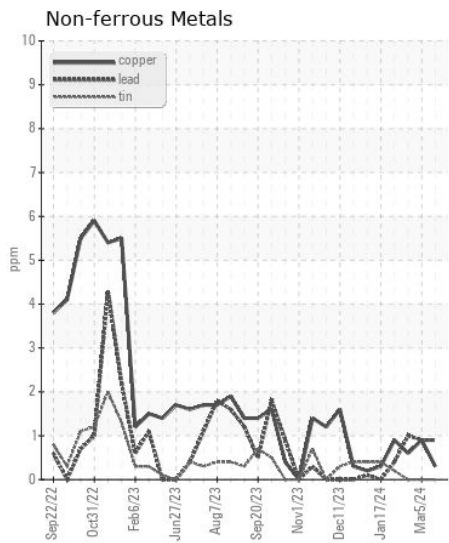
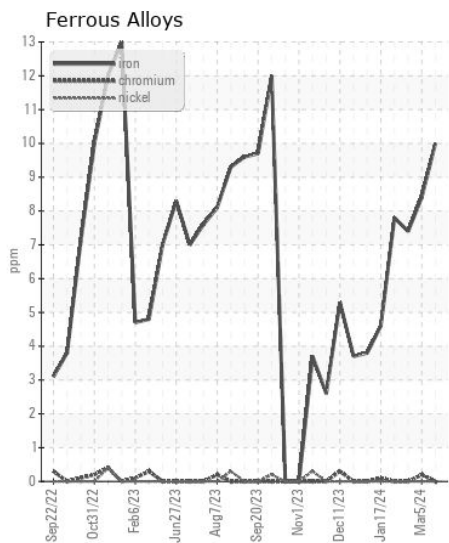
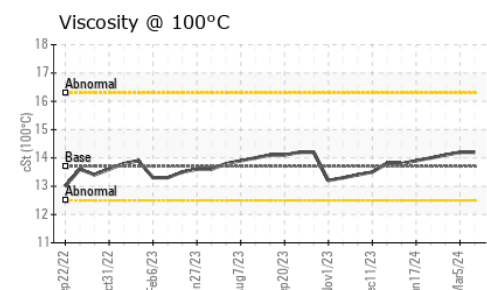
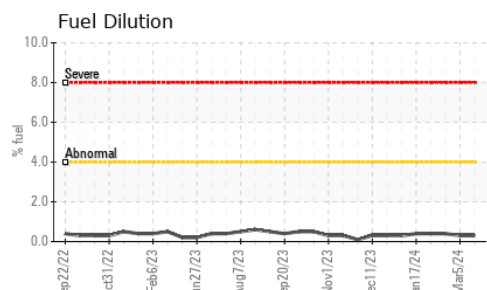
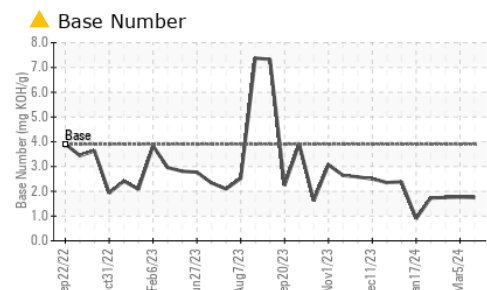
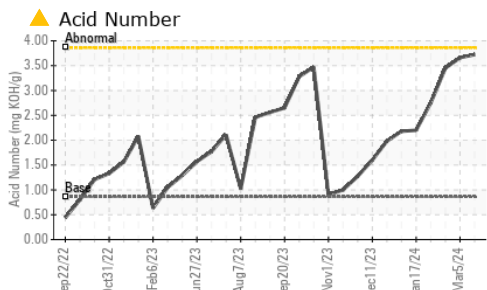
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Fuel	%	ASTM D3524	>4.0	<b>0.3</b>	0.3	0.4
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.5</b>	12.4	12.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.3</b>	21.1	20.9
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN level is low. The AN level is at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		<b>4</b>	2	4
Boron	ppm	ASTM D5185m	5	<b>7</b>	0	2
Barium	ppm	ASTM D5185m	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	2	<b>&lt;1</b>	<1	2
Manganese	ppm	ASTM D5185m	1	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	5	<b>4</b>	9	7
Calcium	ppm	ASTM D5185m	1220	<b>1418</b>	1360	1369
Phosphorus	ppm	ASTM D5185m	298	<b>310</b>	312	292
Zinc	ppm	ASTM D5185m	350	<b>364</b>	369	363
Sulfur	ppm	ASTM D5185m	1995	<b>2442</b>	2108	2362
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.3</b>	22.2	21.8
Acid Number (AN)	mg KOH/g	ASTM D8045	0.86	<b>▲ 3.723</b>	▲ 3.66	▲ 3.45
Base Number (BN)	mg KOH/g	ASTM D2896	3.9	<b>▲ 1.75</b>	▲ 1.77	▲ 1.75
Visc @ 100°C	cSt	ASTM D445	13.7	<b>14.2</b>	14.2	14.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0096592  
**Lab Number** : 06125806  
**Unique Number** : 10939957  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel, PrtCount )

**Received** : 21 Mar 2024  
**Tested** : 25 Mar 2024  
**Diagnosed** : 25 Mar 2024 - Angela Borella

**DIVERSIFIED ENERGY - CURWENSVILLE**  
 325 WALNUT ST FL2  
 CURWENSVILLE, PA  
 US 16833  
 Contact: ZACH MCGARY  
 zmcgary@dgoc.com

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)

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F: