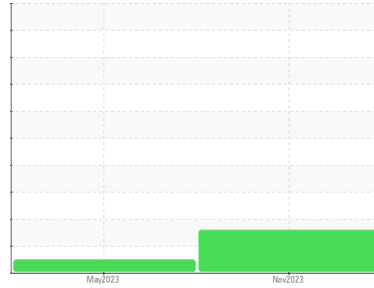


# OIL ANALYSIS REPORT



Area  
**Scoop 6 Yard**  
Machine Id  
**LHD6102**  
Component  
**Front Right Wheel Hub**  
Fluid  
**PETRO CANADA TRAXON 80W90 (4 LTR)**

Sample Rating Trend



## DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

### Wear

Aluminum ppm levels are noted. All other component wear rates are normal.

### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. 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>PC0075095</b>	PC0066826	---
Sample Date	Client Info		<b>02 Nov 2023</b>	11 May 2023	---
Machine Age	hrs	Client Info	<b>3868</b>	2662	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>500	<b>362</b>	140	---
Chromium	ppm	ASTM D5185(m)	>8	<b>2</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>5	<b>7</b>	1	---
Lead	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185(m)	>50	<b>35</b>	27	---
Tin	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185(m)	>5	<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)	243	<b>4</b>	35	---
Barium	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Manganese	ppm	ASTM D5185(m)		<b>3</b>	2	---
Magnesium	ppm	ASTM D5185(m)	2	<b>4</b>	3	---
Calcium	ppm	ASTM D5185(m)	6	<b>159</b>	34	---
Phosphorus	ppm	ASTM D5185(m)	987	<b>572</b>	873	---
Zinc	ppm	ASTM D5185(m)	1	<b>82</b>	25	---
Sulfur	ppm	ASTM D5185(m)	21530	<b>17541</b>	21042	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

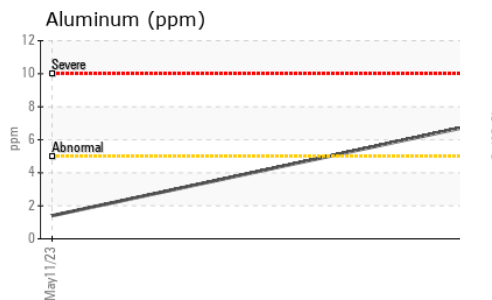
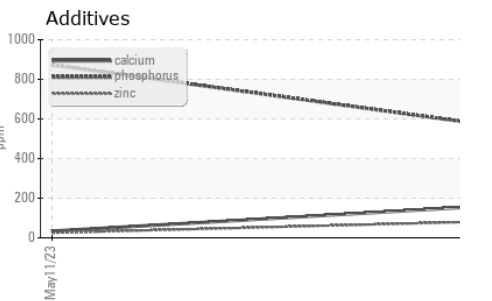
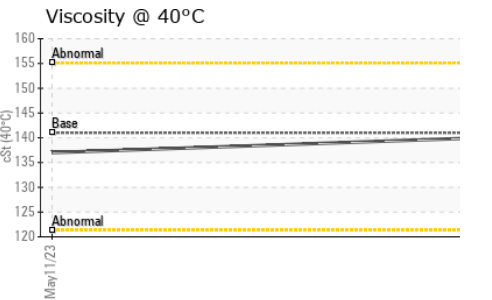
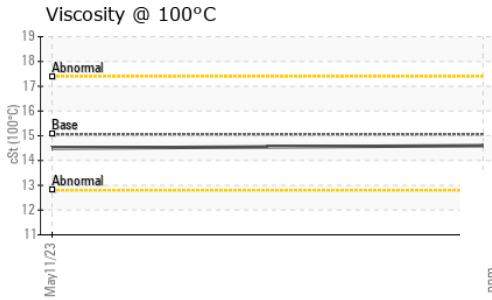
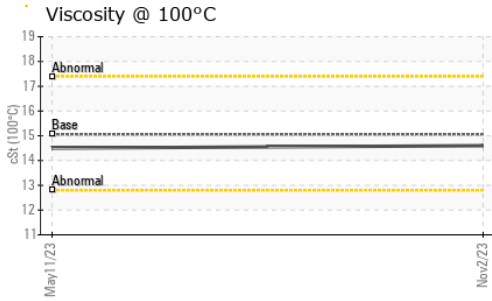
## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>▲ 29</b>	5	---
Sodium	ppm	ASTM D5185(m)		<b>3</b>	<1	---
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	---

## VISUAL

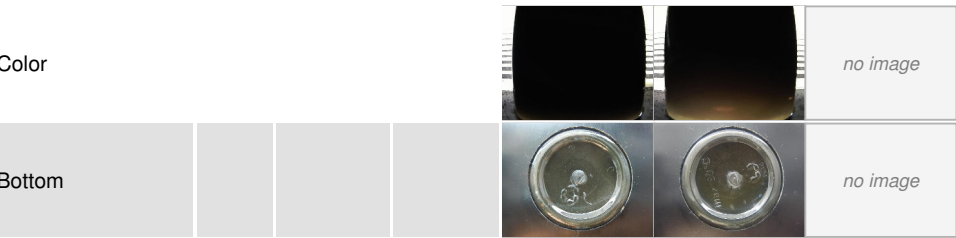
	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---
Free Water	scalar	Visual*		<b>NEG</b>	NEG	---

# OIL ANALYSIS REPORT

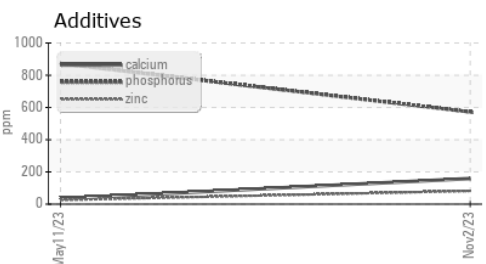
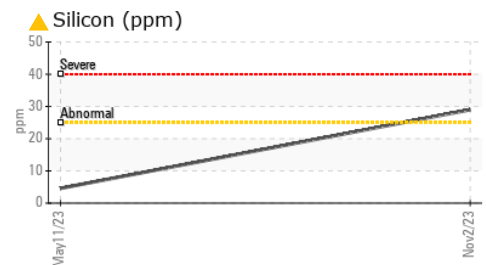
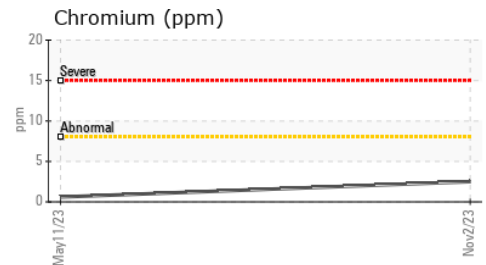
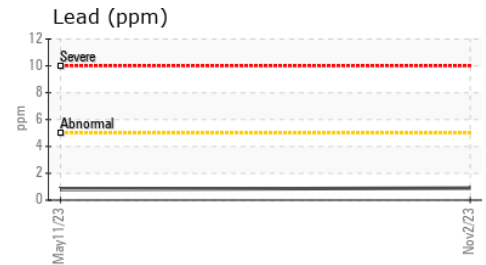
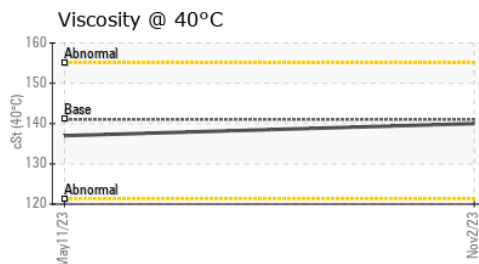
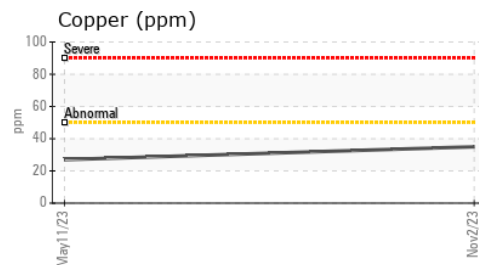
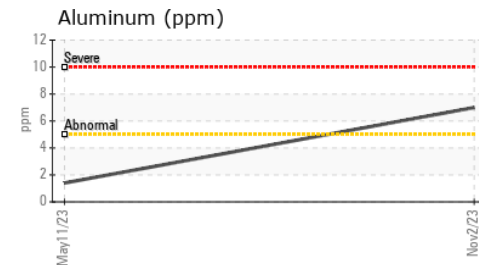
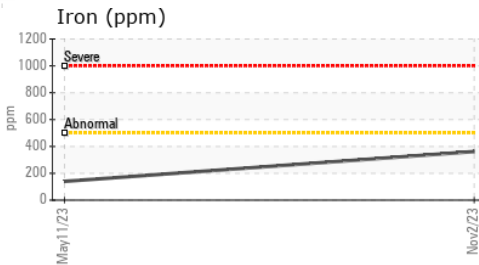


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	141.0	<b>140</b>	137	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.06	<b>14.6</b>	14.5	---
Viscosity Index (VI)	Scale	ASTM D2270*	108	<b>103</b>	104	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0075095 **Received** : 14 Nov 2023  
**Lab Number** : 02596306 **Diagnosed** : 15 Nov 2023  
**Unique Number** : 5681386 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KV100, VI )

**Lakeshore Gold Timmins West**  
 Timmins, ON  
 CA  
 Contact: Adam Koscielak  
 adam.koscielak@HFSinclair.com  
 T:  
 F:

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.