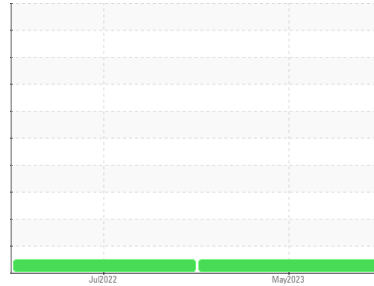


# OIL ANALYSIS REPORT



Area  
**Haul Truck**  
Machine Id  
**HT4501**  
Component  
**Rear Differential**  
Fluid  
**PETRO CANADA PRODURO FD-1 60 (83 LTR)**

Sample Rating Trend



**NORMAL**

## DIAGNOSIS

**Recommendation**  
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

**Wear**  
All component wear rates are normal.

**Contamination**  
There is no indication of any contamination in the oil.

**Fluid Condition**  
Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history 1	history 2
Sample Number	Client Info	<b>PC0051407</b>	PC0048836	---
Sample Date	Client Info	<b>13 May 2023</b>	21 Jul 2022	---
Machine Age	hrs Client Info	<b>6383</b>	4116	---
Oil Age	hrs Client Info	<b>0</b>	0	---
Oil Changed	Client Info	<b>N/A</b>	N/A	---
Sample Status		<b>NORMAL</b>	NORMAL	---

## WEAR METALS

method	limit/base	current	history 1	history 2
Iron ppm ASTM D5185(m)	>500	<b>17</b>	19	---
Chromium ppm ASTM D5185(m)	>3	<b>0</b>	0	---
Nickel ppm ASTM D5185(m)	>3	<b>0</b>	0	---
Titanium ppm ASTM D5185(m)	>2	<b>0</b>	<1	---
Silver ppm ASTM D5185(m)	>2	<b>0</b>	0	---
Aluminum ppm ASTM D5185(m)	>30	<b>1</b>	1	---
Lead ppm ASTM D5185(m)	>13	<b>&lt;1</b>	<1	---
Copper ppm ASTM D5185(m)	>103	<b>13</b>	17	---
Tin ppm ASTM D5185(m)	>5	<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	history 1	history 2
Boron ppm ASTM D5185(m)	92	<b>5</b>	102	---
Barium ppm ASTM D5185(m)	0	<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)	0	<b>13</b>	19	---
Calcium ppm ASTM D5185(m)	283	<b>2155</b>	3639	---
Phosphorus ppm ASTM D5185(m)	306	<b>911</b>	1161	---
Zinc ppm ASTM D5185(m)	0	<b>995</b>	1330	---
Sulfur ppm ASTM D5185(m)	9080	<b>3481</b>	3127	---
Lithium ppm ASTM D5185(m)		<b>&lt;1</b>	<1	---

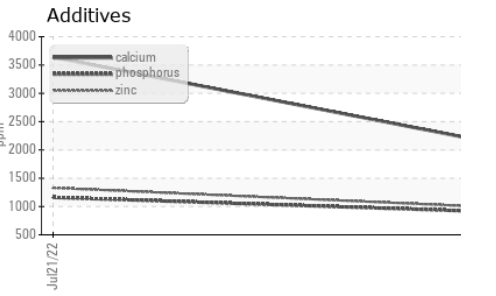
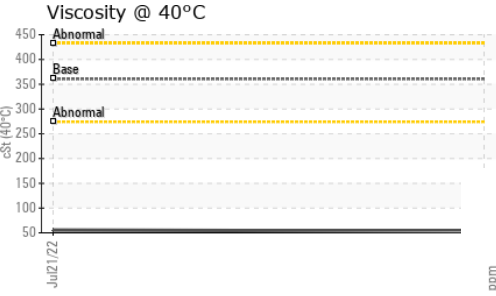
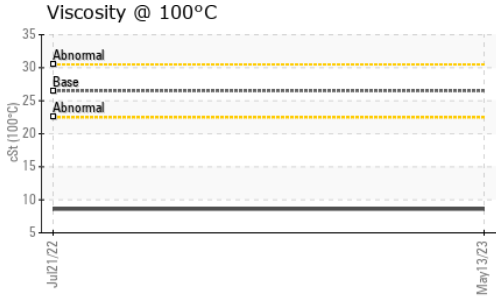
## CONTAMINANTS

method	limit/base	current	history 1	history 2
Silicon ppm ASTM D5185(m)	>100	<b>4</b>	11	---
Sodium ppm ASTM D5185(m)		<b>&lt;1</b>	1	---
Potassium ppm ASTM D5185(m)	>20	<b>2</b>	<1	---

## VISUAL

method	limit/base	current	history 1	history 2
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>	VLITE	---
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*	>.2	<b>NEG</b>	NEG	---
Free Water scalar Visual*		<b>NEG</b>	NEG	---

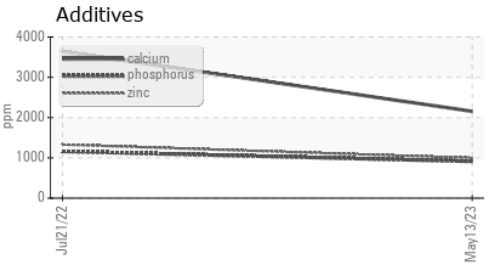
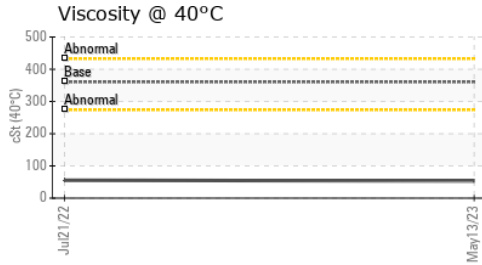
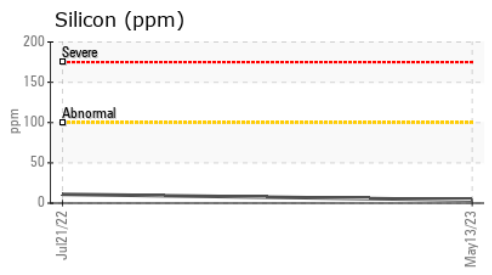
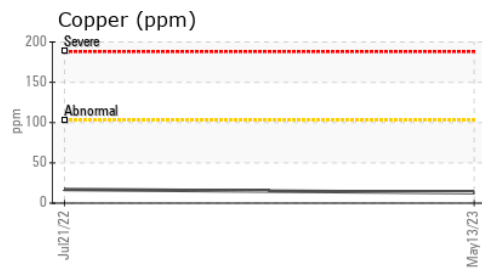
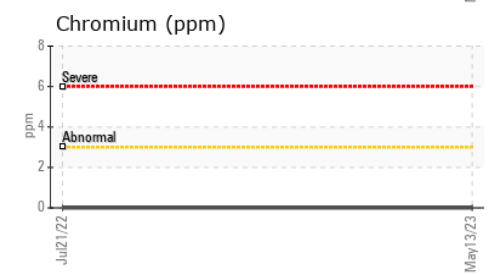
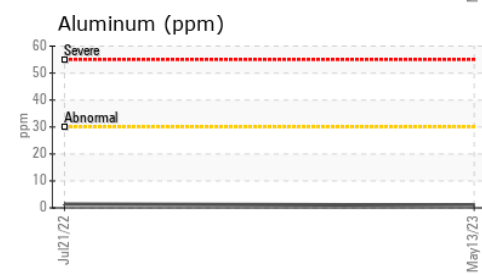
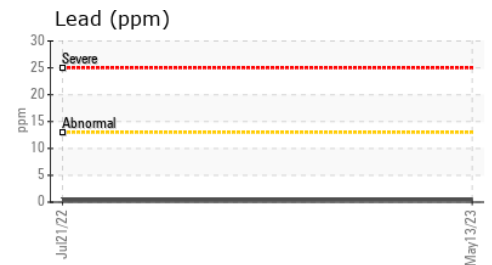
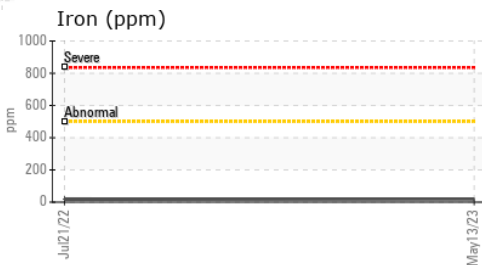
# OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D7279(m)	360.6	<b>53.4</b>	55.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	26.49	<b>8.6</b>	8.6	---
Viscosity Index (VI)	Scale	ASTM D2270*	98	<b>136</b>	129	---

SAMPLE IMAGES		method	limit/base	current	history 1	history 2
Color						no image
Bottom						no image

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0051407 **Received** : 04 Jul 2023  
**Lab Number** : **02567853** **Diagnosed** : 05 Jul 2023  
**Unique Number** : 5604899 **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.