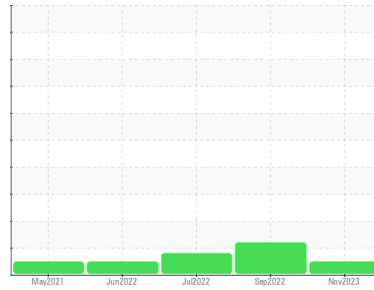


# OIL ANALYSIS REPORT



Area  
**Haul Truck**  
Machine Id  
**HT4502**  
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 75W80 range, advise investigate. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PC0074885</b>	PC0048752	PC0048865
Sample Date	Client Info		<b>23 Nov 2023</b>	26 Sep 2022	27 Jul 2022
Machine Age	hrs	Client Info	<b>6729</b>	1944	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>500	<b>26</b>	8	74
Chromium	ppm	ASTM D5185(m)	>3	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>1</b>	2	6
Lead	ppm	ASTM D5185(m)	>13	<b>2</b>	0	2
Copper	ppm	ASTM D5185(m)	>103	<b>105</b>	<1	70
Tin	ppm	ASTM D5185(m)	>5	<b>4</b>	0	1
Antimony	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	<1

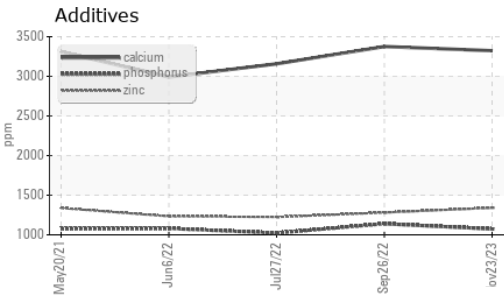
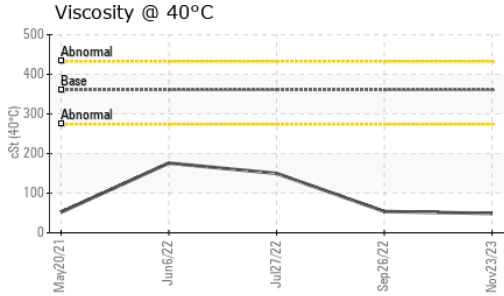
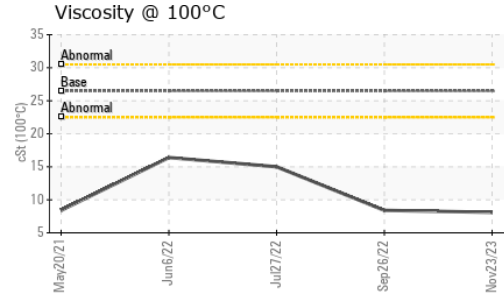
## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	92	<b>83</b>	90	15
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	1	11
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	1
Magnesium	ppm	ASTM D5185(m)	0	<b>13</b>	23	16
Calcium	ppm	ASTM D5185(m)	283	<b>3323</b>	3376	3158
Phosphorus	ppm	ASTM D5185(m)	306	<b>1074</b>	1140	1022
Zinc	ppm	ASTM D5185(m)	0	<b>1341</b>	1281	1224
Sulfur	ppm	ASTM D5185(m)	9080	<b>2788</b>	2694	5992
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>100	<b>10</b>	11	26
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	6
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	19

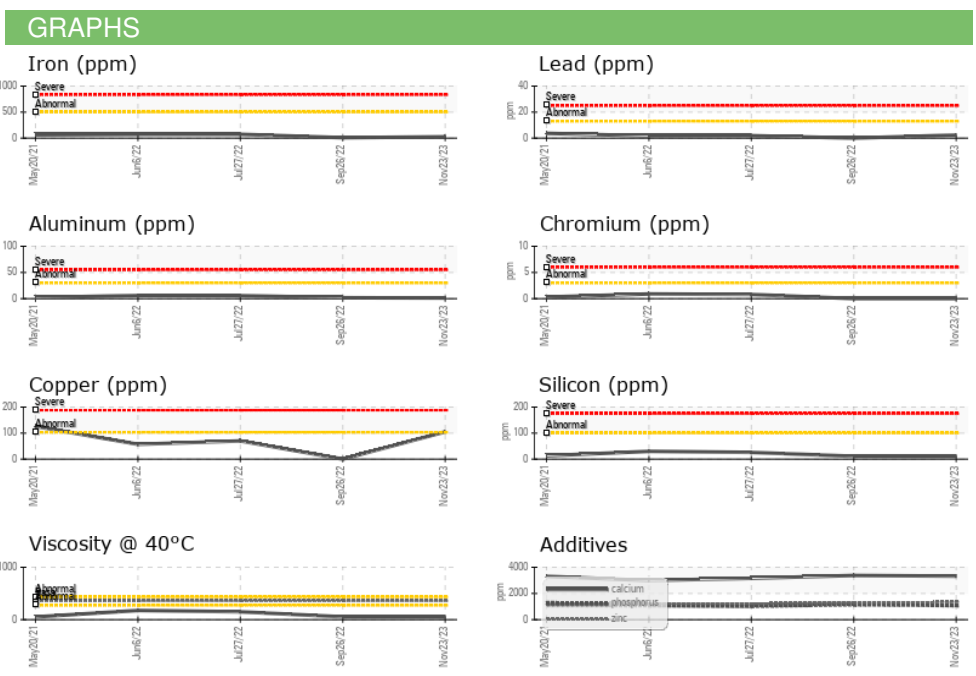
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	VLITE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	VLITE
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*	>.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	360.6	48.8	▲ 53.8 ▲ 150
Visc @ 100°C	cSt	ASTM D7279(m)	26.49	8.1	▲ 8.4 ▲ 15.0
Viscosity Index (VI)	Scale	ASTM D2270*	98	138	▲ 129 99

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0074885 **Received** : 06 Dec 2023  
**Lab Number** : 02601296 **Diagnosed** : 07 Dec 2023  
**Unique Number** : 5694381 **Diagnostician** : Bill Quesnel  
**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.