

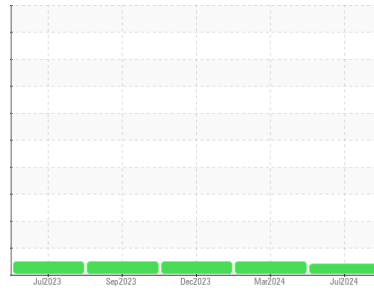


# OIL ANALYSIS REPORT



Machine Id  
**CATERPILLAR R1600 SCP219**  
 Component  
**Hydraulic System**  
 Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)**

## Sample Rating Trend



## VISCOSITY



### DIAGNOSIS

#### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the component(unconfirmed).

#### Fluid Condition

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. 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>WC0960980</b>	WC0902284	WC0826267
Sample Date	Client Info		<b>07 Jul 2024</b>	21 Mar 2024	31 Dec 2023
Machine Age	hrs	Client Info	<b>4484</b>	0	2498
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	<b>4</b>	8	6
Chromium	ppm	ASTM D5185(m) >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >10	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	2	3
Copper	ppm	ASTM D5185(m) >75	<b>2</b>	3	3
Tin	ppm	ASTM D5185(m) >10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<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	0

### ADDITIVES

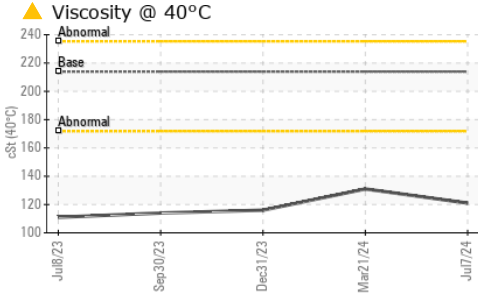
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 2	<b>32</b>	6	10
Barium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>20</b>	11	15
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m) 9	<b>257</b>	171	214
Calcium	ppm	ASTM D5185(m) 3114	<b>2406</b>	2805	2464
Phosphorus	ppm	ASTM D5185(m) 1099	<b>820</b>	828	836
Zinc	ppm	ASTM D5185(m) 1245	<b>960</b>	996	958
Sulfur	ppm	ASTM D5185(m) 7086	<b>6092</b>	6287	4975
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	<b>6</b>	5	5
Sodium	ppm	ASTM D5185(m)	<b>1</b>	2	2
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	1	0



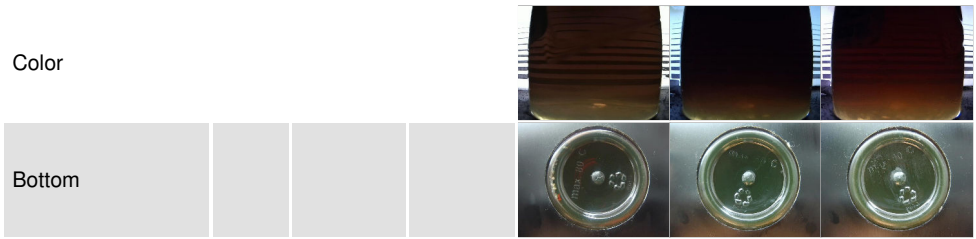
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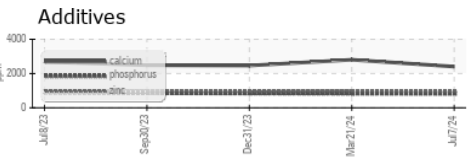
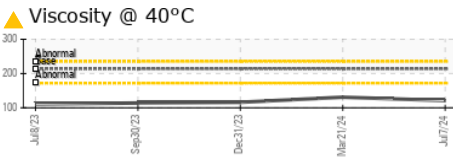
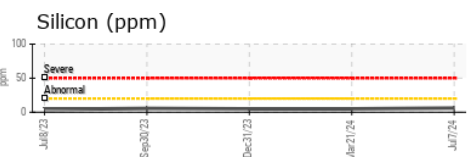
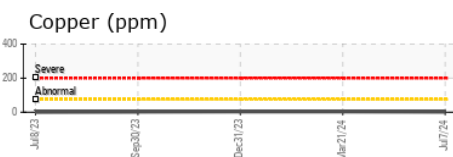
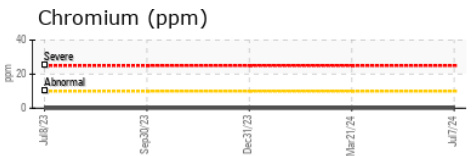
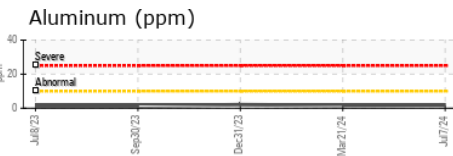
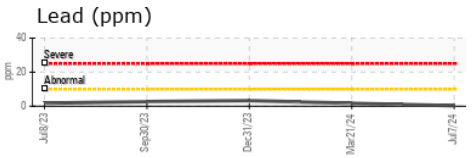
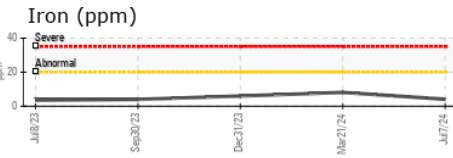
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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 @ 40°C	cSt	ASTM D7279(m)	213.9 ▲ 121	131	116

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.** : WC0960980  
**Lab Number** : 02647062  
**Unique Number** : 5812614  
**Test Package** : MOB 1

**Agnico Eagle Canada**  
 1350 Government Rd. W, MACASSA COMPLEX  
 Kirkland Lake, ON  
 CA P2N 3J1

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.

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