

Machine Id  
**CR219**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA SUPREME SYNTHETIC 5W40 (28 LTR)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0078318</b>	PC	PC0072914
Sample Date		Client Info		<b>20 Feb 2024</b>	25 Oct 2023	01 Mar 2023
Machine Age	hrs	Client Info		<b>4859</b>	0	8700
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>17</b>	22	16
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	4
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	<1	3
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>4</b>	0	6
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

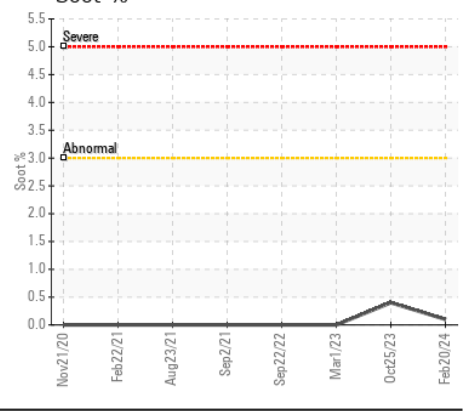
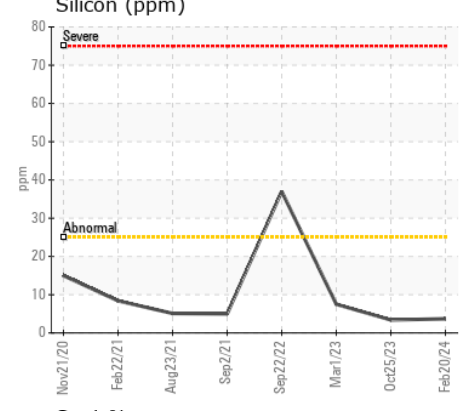
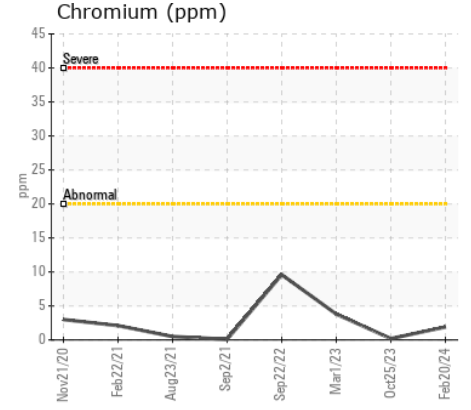
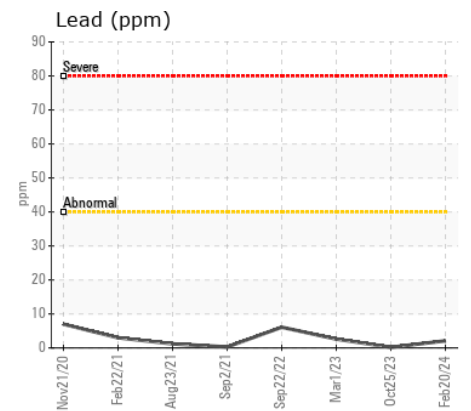
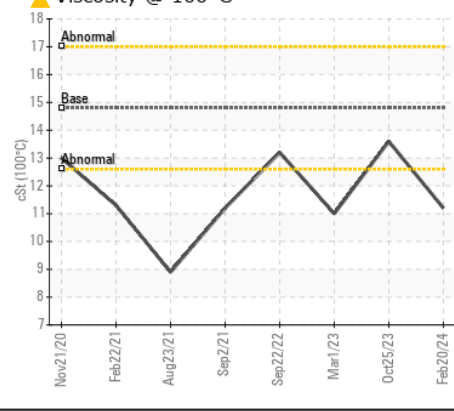
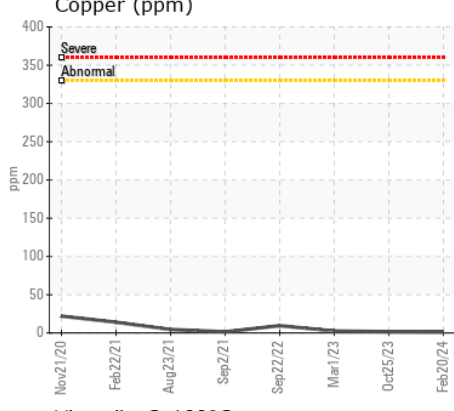
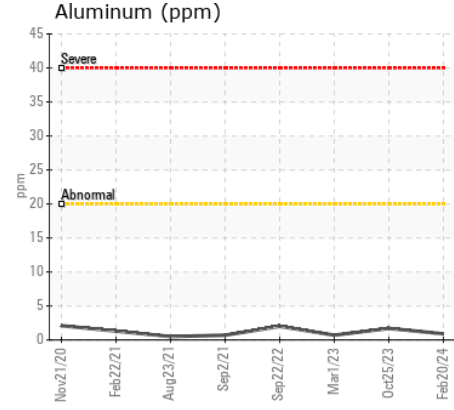
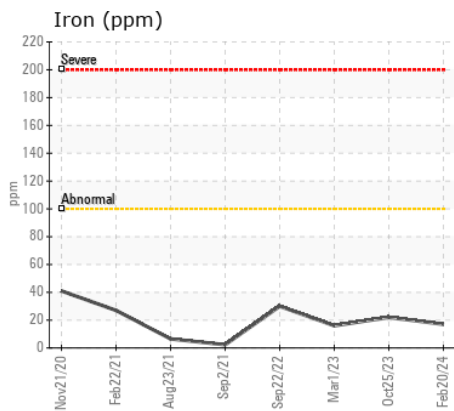
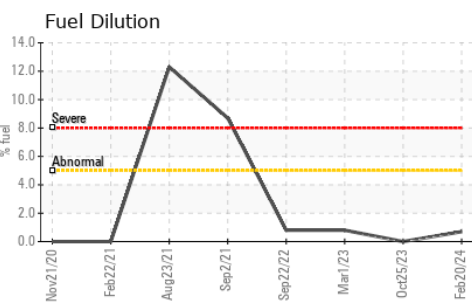
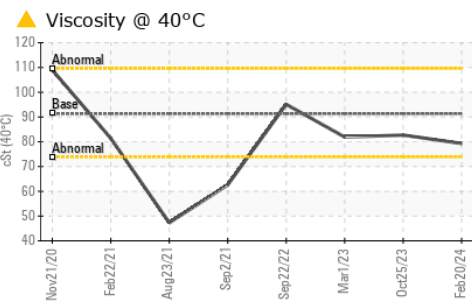
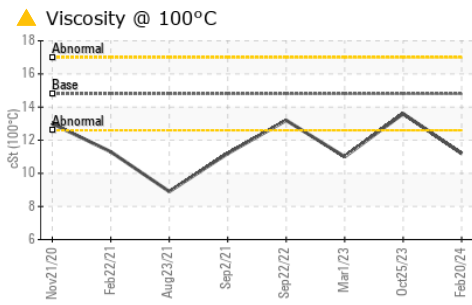
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	3	8
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Fuel	%	ASTM D7593*	>5	<b>0.7</b>	<1.0	0.8
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0.4	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>5.0</b>	9.1	4.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>14.8</b>	20.6	16.3
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Viscosity of sample indicates oil is within SAE 10W30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	5	1
Boron	ppm	ASTM D5185(m)	190	<b>10</b>	28	4
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	79	<b>10</b>	57	2
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	564	<b>1003</b>	1065	994
Calcium	ppm	ASTM D5185(m)	993	<b>1044</b>	836	1147
Phosphorus	ppm	ASTM D5185(m)	763	<b>1134</b>	998	1234
Zinc	ppm	ASTM D5185(m)	835	<b>1290</b>	1166	1330
Sulfur	ppm	ASTM D5185(m)	2536	<b>2834</b>	2740	2845
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>9.3</b>	18.6	8.0
Visc @ 40°C	cSt	ASTM D7279(m)	91.3	<b>▲ 79.3</b>	82.7	81.9
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	<b>▲ 11.2</b>	13.6	▲ 11.0
Viscosity Index (VI)	Scale	ASTM D2270*	170	<b>▲ 130</b>	168	▲ 121



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0078318  
**Lab Number** : 02617399  
**Unique Number** : 5734509  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, KV40, PercentFuel, VI )

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
 151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Bill Acton  
 bacton@gipi.com

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.

T:  
F: