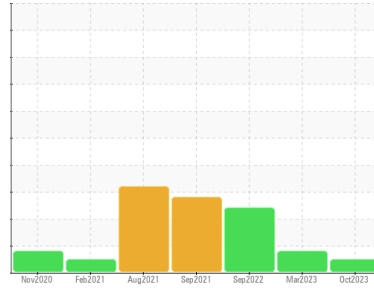


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
CR219

Component
Diesel Engine

Fluid
PETRO CANADA SUPREME SYNTHETIC 5W40 (28 LTR)

DIAGNOSIS

Recommendation

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

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC	PC0072914	PC0064802
Sample Date	Client Info			25 Oct 2023	01 Mar 2023	22 Sep 2022
Machine Age	hrs	Client Info		0	8700	3160
Oil Age	hrs	Client Info		0	0	500
Oil Changed	Client Info			N/A	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>5	<1.0	0.8	0.8
Glycol	WC Method			NEG	NEG	NEG

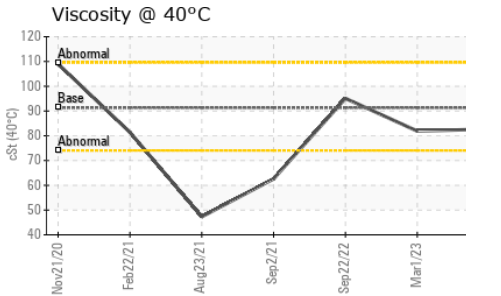
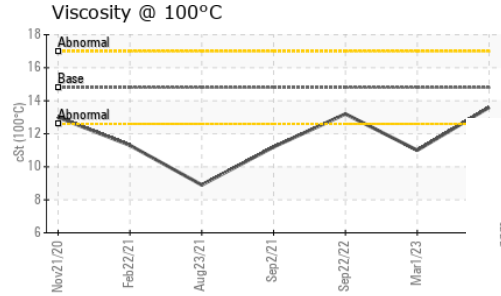
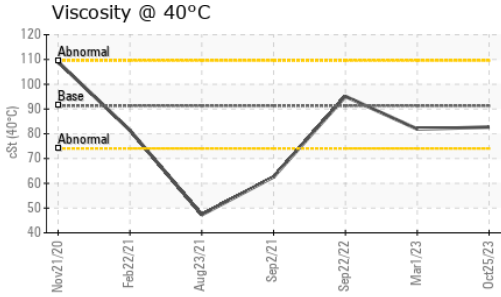
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	22	16	30
Chromium	ppm	ASTM D5185(m)	>20	<1	4	10
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	<1	2
Lead	ppm	ASTM D5185(m)	>40	<1	3	6
Copper	ppm	ASTM D5185(m)	>330	2	2	10
Tin	ppm	ASTM D5185(m)	>15	0	6	▲ 24
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	190	28	4	29
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	79	57	2	31
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	564	1065	994	965
Calcium	ppm	ASTM D5185(m)	993	836	1147	1025
Phosphorus	ppm	ASTM D5185(m)	763	998	1234	1095
Zinc	ppm	ASTM D5185(m)	835	1166	1330	1177
Sulfur	ppm	ASTM D5185(m)	2536	2740	2845	2867
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	3	8	▲ 37
Sodium	ppm	ASTM D5185(m)		5	1	13
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.4	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.1	4.8	6.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	16.3	17.5

OIL ANALYSIS REPORT

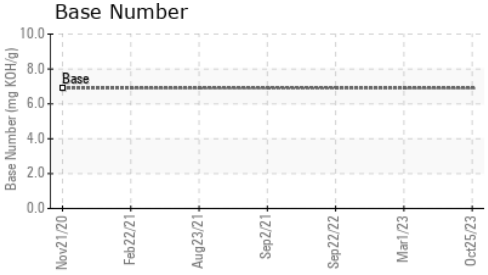
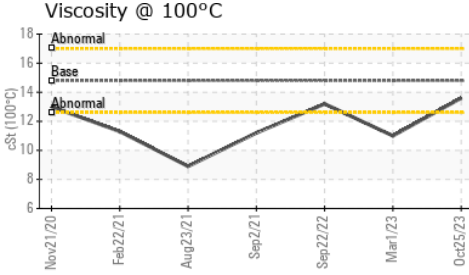
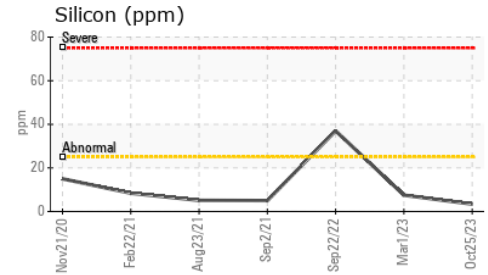
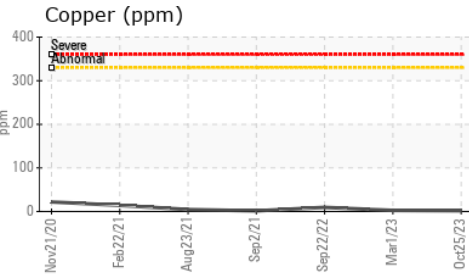
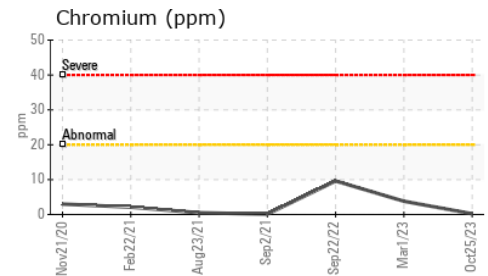
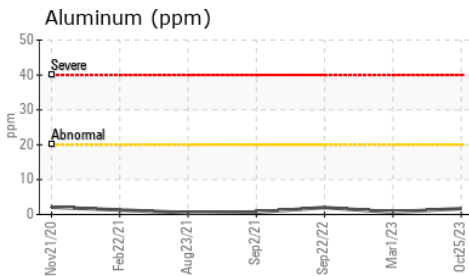
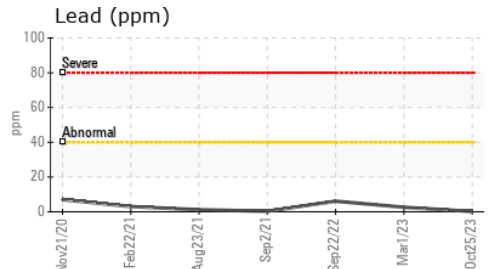
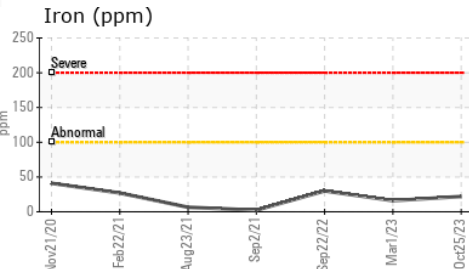


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.6	8.0	13.0
Base Number (BN)	mg KOH/g	ASTM D2896*	6.9	9.43	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	91.3	82.7	81.9	95.1
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	13.6	▲ 11.0	13.2
Viscosity Index (VI)	Scale	ASTM D2270*	170	168	▲ 121	137

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC **Received** : 26 Oct 2023
Lab Number : 02592009 **Diagnosed** : 30 Oct 2023
Unique Number : 5669088 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: KV40, VI)

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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 Stouffville, ON
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 Contact: Bill Acton
 bacton@gipi.com

T:
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