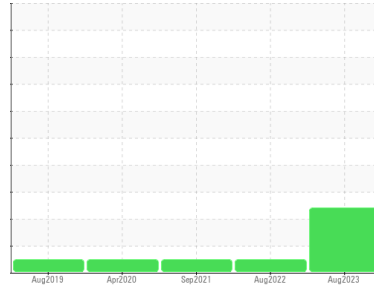


Machine Id
CR251
Component
Left Final Drive
Fluid
PETRO CANADA ENDURATEX EP 220 (--- LTR)



DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Aluminum ppm levels are noted. All other component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC0078515	PC0064774	PC0053502
Sample Date	Client Info	14 Aug 2023	24 Aug 2022	22 Sep 2021
Machine Age	hrs	16950	11834	10860
Oil Age	hrs	1000	0	0
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >500	126	40	77
Chromium	ppm	ASTM D5185(m) >10	2	<1	1
Nickel	ppm	ASTM D5185(m) >10	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	<1	<1
Silver	ppm	ASTM D5185(m)	0	0	<1
Aluminum	ppm	ASTM D5185(m) >25	▲ 20	7	13
Lead	ppm	ASTM D5185(m) >25	<1	0	<1
Copper	ppm	ASTM D5185(m) >50	20	1	2
Tin	ppm	ASTM D5185(m) >10	2	0	<1
Antimony	ppm	ASTM D5185(m) >5	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	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 60	12	24	37
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	2	<1	<1
Magnesium	ppm	ASTM D5185(m) 0	12	4	9
Calcium	ppm	ASTM D5185(m) 0	62	28	54
Phosphorus	ppm	ASTM D5185(m) 270	343	419	402
Zinc	ppm	ASTM D5185(m) 0	14	6	6
Sulfur	ppm	ASTM D5185(m) 11200	5239	4903	5822
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

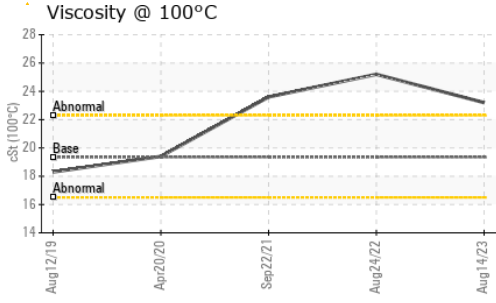
CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >75	▲ 87	28	53
Sodium	ppm	ASTM D5185(m)	7	2	3
Potassium	ppm	ASTM D5185(m) >20	8	2	5

VISUAL

method	limit/base	current	history1	history2	
White Metal	scalar	Visual* NONE	VLITE	NONE	NONE
Yellow Metal	scalar	Visual* NONE	NONE	NONE	NONE
Precipitate	scalar	Visual* NONE	NONE	NONE	NONE
Silt	scalar	Visual* NONE	LIGHT	NONE	NONE
Debris	scalar	Visual* NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual* NONE	NONE	NONE	NONE
Appearance	scalar	Visual* NORML	NORML	NORML	NORML
Odor	scalar	Visual* NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual* >0.2	NEG	NEG	NEG
Free Water	scalar	Visual*	NEG	NEG	NEG

OIL ANALYSIS REPORT



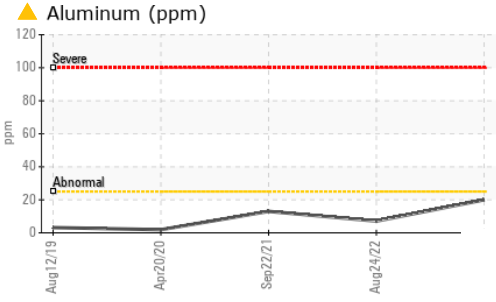
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	210	216	210
Visc @ 100°C	cSt	ASTM D7279(m)	19.35	23.2	25.2	23.6
Viscosity Index (VI)	Scale	ASTM D2270*	99	135	147	138

SAMPLE IMAGES		method	limit/base	current	history1	history2
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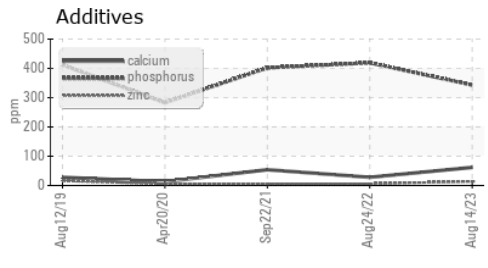
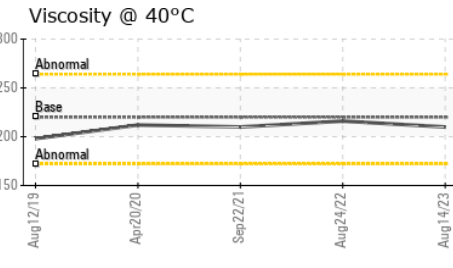
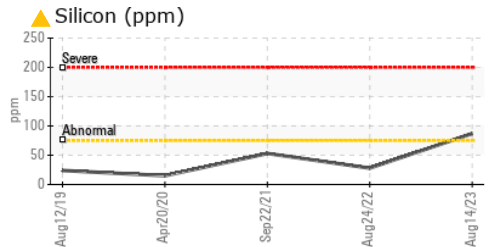
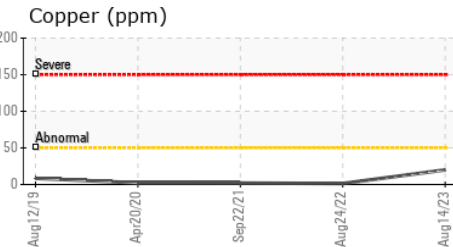
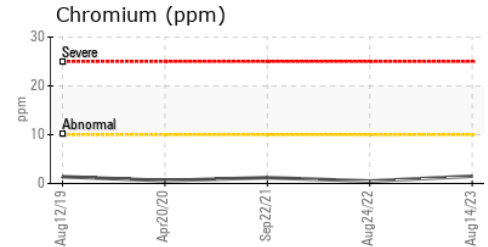
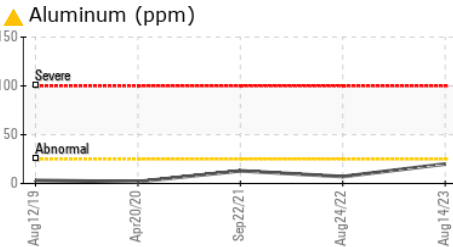
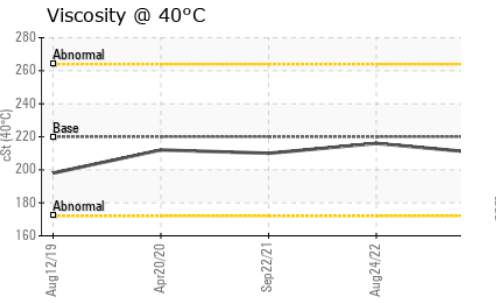
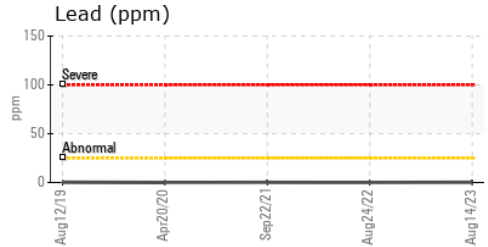
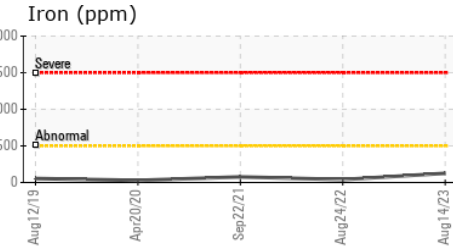
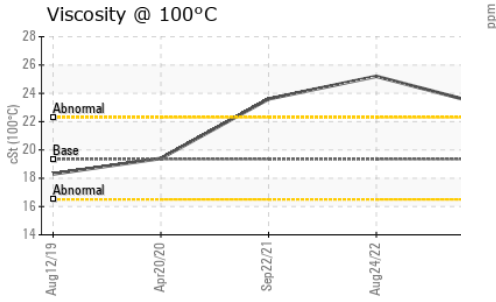
Color



Bottom



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC0078515 **Received** : 28 Aug 2023 151 Ram Forest Rd,
Lab Number : 02578865 **Diagnosed** : 29 Aug 2023 Stouffville, ON
Unique Number : 5631925 **Diagnostician** : Kevin Marson CA L4A 2G8
Test Package : MOB 1 (Additional Tests: KV100, VI)
 Contact: Shannon Abbott
 sabbott@gipi.com
 T: (905)750-5900
 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.