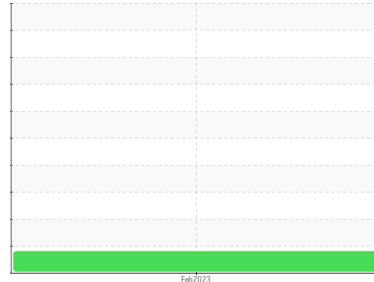




Machine Id
LDC THRUST

Component
Gearbox

Fluid
PETRO CANADA ENDURATEX EP 460 (--- GAL)



DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PC0061658	---	---
Sample Date	Client Info		14 Feb 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ATTENTION	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		60	---	---
Iron	ppm	ASTM D5185(m) >200	▲ 261	---	---
Chromium	ppm	ASTM D5185(m) >15	2	---	---
Nickel	ppm	ASTM D5185(m) >15	1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m)	0	---	---
Aluminum	ppm	ASTM D5185(m) >25	4	---	---
Lead	ppm	ASTM D5185(m) >100	<1	---	---
Copper	ppm	ASTM D5185(m) >200	2	---	---
Tin	ppm	ASTM D5185(m) >25	0	---	---
Antimony	ppm	ASTM D5185(m) >5	<1	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 55	44	---	---
Barium	ppm	ASTM D5185(m) 0	0	---	---
Molybdenum	ppm	ASTM D5185(m) 0	<1	---	---
Manganese	ppm	ASTM D5185(m) 0	2	---	---
Magnesium	ppm	ASTM D5185(m) 2	<1	---	---
Calcium	ppm	ASTM D5185(m) 6	<1	---	---
Phosphorus	ppm	ASTM D5185(m) 240	261	---	---
Zinc	ppm	ASTM D5185(m) 3	3	---	---
Sulfur	ppm	ASTM D5185(m) 10310	5652	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

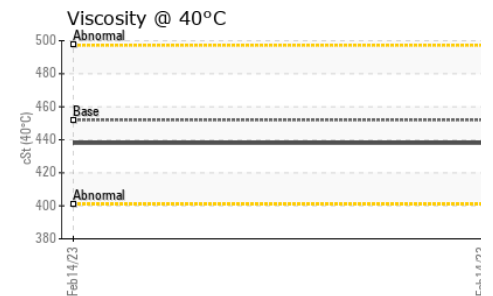
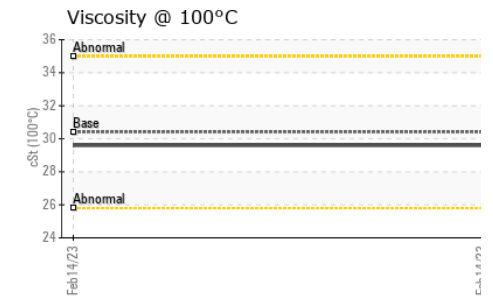
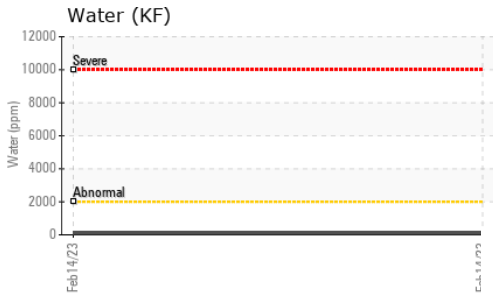
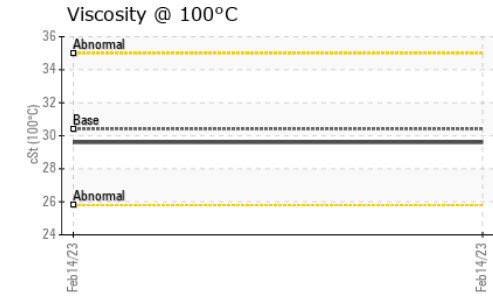
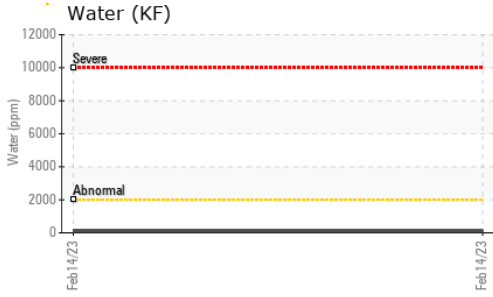
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	14	---	---
Sodium	ppm	ASTM D5185(m)	<1	---	---
Potassium	ppm	ASTM D5185(m) >20	0	---	---
Water	%	ASTM D6304* >0.2	0.010	---	---
ppm Water	ppm	ASTM D6304* >2000	108.0	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.5	0.76	---	---

OIL ANALYSIS REPORT



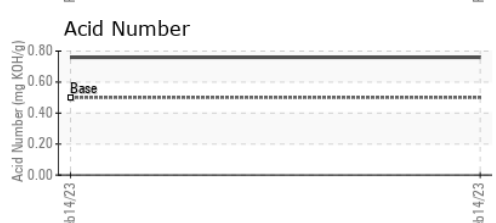
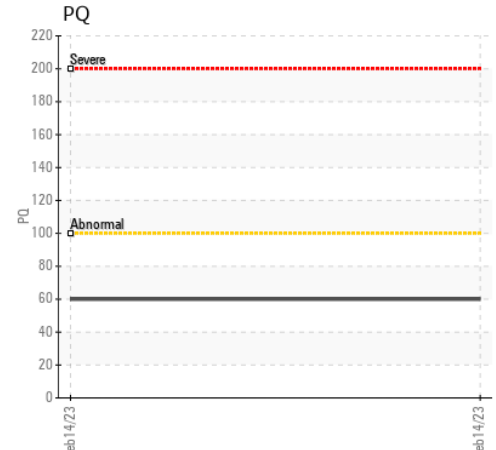
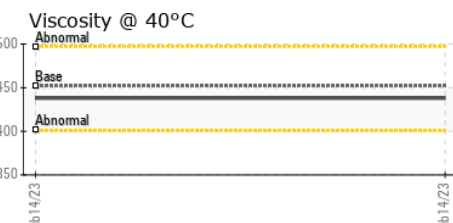
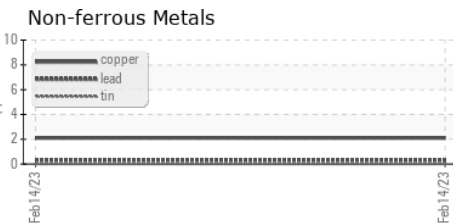
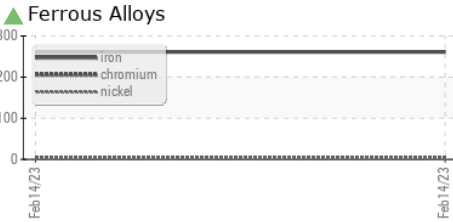
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	.2%	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	452	438	---
Visc @ 100°C	cSt	ASTM D7279(m)	30.41	29.6	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	95	---

SAMPLE IMAGES

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0061658 **Received** : 15 Feb 2023
Lab Number : **02539795** **Tested** : 16 Feb 2023
Unique Number : 5528795 **Diagnosed** : 17 Feb 2023 - Kevin Marson
Test Package : IND 2 (Additional Tests: KF, KV100, TAN Man, VI)

ARMTEC
 33 CENTENNIAL RD
 ORANGEVILLE, ON
 CA L9W 1R1
 Contact: Scott Middlehurst
 scott.middlehurst@armtec.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: