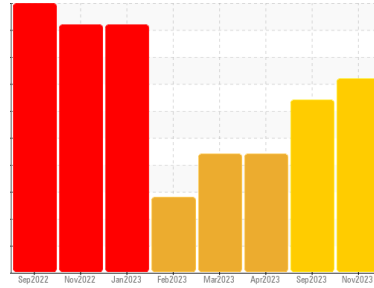




PROBLEM SUMMARY

Area
HOTLINE/120 MILL
 Machine Id
120 TRIMMER 1415-003-0020
 Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX EP 220 (700 GAL)

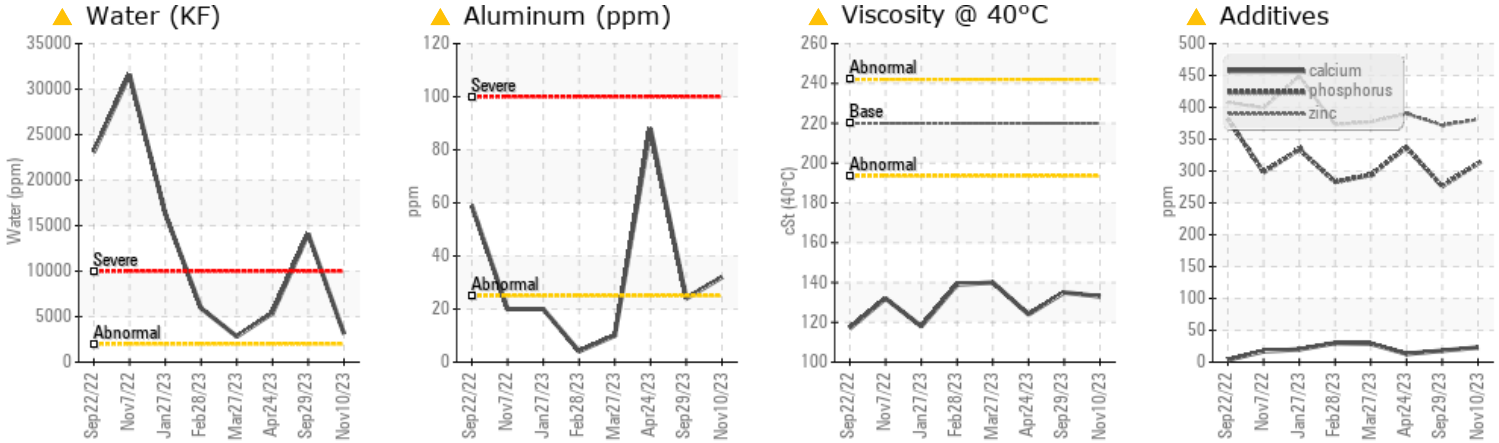
Sample Rating Trend



WATER



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	ABNORMAL
Aluminum	ppm	ASTM D5185m	>25	▲ 32	24	▲ 88
Zinc	ppm	ASTM D5185m	0	▲ 381	372	390
Sulfur	ppm	ASTM D5185m	11200	▲ 808	890	522
Water	%	ASTM D6304	>0.2	▲ 0.314	1.41	▲ 0.538
ppm Water	ppm	ASTM D6304	>2000	▲ 3140	14100	▲ 5380
Silt	scalar	*Visual	NONE	▲ HEAVY	NONE	▲ HEAVY
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ MILKY	NORML	▲ MILKY
Free Water	scalar	*Visual		▲ 1.0	NEG	NEG
Visc @ 40°C	cSt	ASTM D445	220	▲ 133	▲ 135	▲ 124

Customer Id: CONMUSAL
 Sample No.: KFS0004819
 Lab Number: 06007663
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

29 Sep 2023 Diag: Jonathan Hester

WATER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of particulates present in the oil. There is a high concentration of water present in the oil. The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

view report



24 Apr 2023 Diag: Doug Bogart

WATER



We advise that you check for the source of water entry. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. The aluminum level is abnormal. Appearance is milky. There is a high amount of visible silt present in the sample. There is a moderate concentration of water present in the oil. The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

view report



27 Mar 2023 Diag: Don Baldrige

WATER



We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. Appearance is hazy. There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil. The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

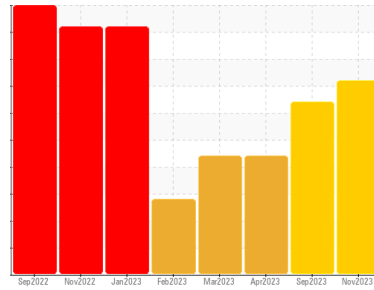
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
HOTLINE/120 MILL
 Machine Id
120 TRIMMER 1415-003-0020
 Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX EP 220 (700 GAL)

DIAGNOSIS

Recommendation

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Appearance is milky. There is a high amount of visible silt present in the sample. Moderate concentration of visible dirt/debris present in the oil. Free water present.

Fluid Condition

The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	KFS0004819	KFS0004888	KFS0003767
Sample Date	Client Info	10 Nov 2023	29 Sep 2023	24 Apr 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	SEVERE	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	13	12	58
Chromium	ppm	ASTM D5185m >15	0	<1	0
Nickel	ppm	ASTM D5185m >15	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	▲ 32	24	▲ 88
Lead	ppm	ASTM D5185m >100	1	0	0
Copper	ppm	ASTM D5185m >200	1	<1	<1
Tin	ppm	ASTM D5185m >25	0	<1	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	2	<1	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 60	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 0	2	1	<1
Calcium	ppm	ASTM D5185m 0	23	18	13
Phosphorus	ppm	ASTM D5185m 270	312	276	337
Zinc	ppm	ASTM D5185m 0	▲ 381	372	390
Sulfur	ppm	ASTM D5185m 11200	▲ 808	890	522

CONTAMINANTS

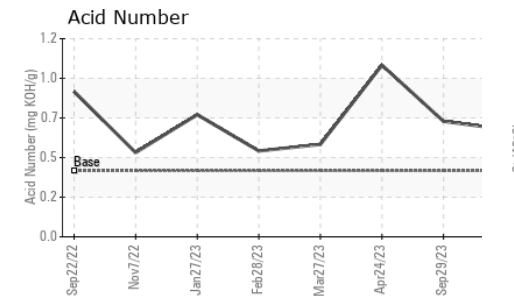
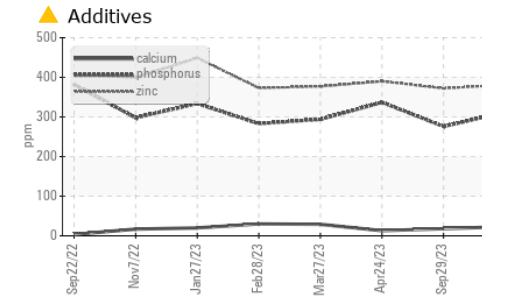
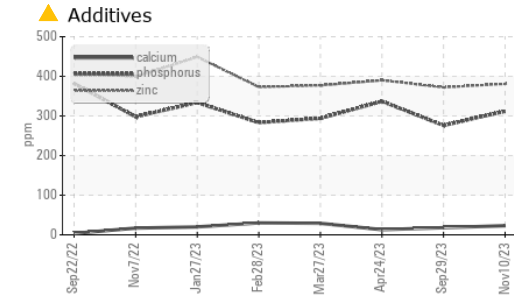
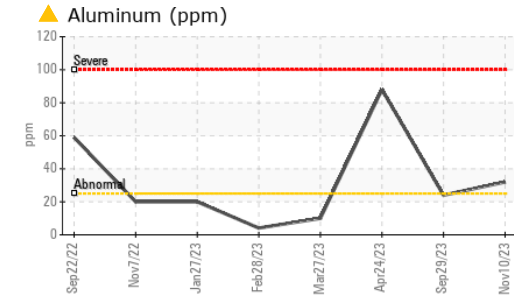
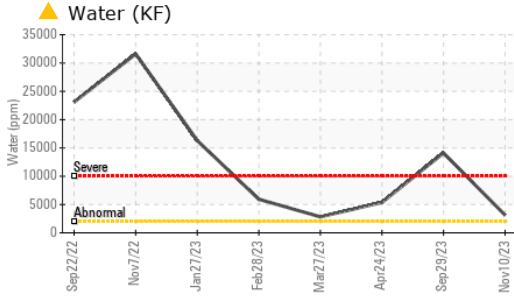
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	0	1	<1
Sodium	ppm	ASTM D5185m	0	5	<1
Potassium	ppm	ASTM D5185m >20	2	<1	2
Water	%	ASTM D6304 >0.2	▲ 0.314	1.41	▲ 0.538
ppm Water	ppm	ASTM D6304 >2000	▲ 3140	14100	▲ 5380

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	---	▲ 40610	---
Particles >6µm	ASTM D7647 >5000	---	▲ 22123	---
Particles >14µm	ASTM D7647 >640	---	▲ 3765	---
Particles >21µm	ASTM D7647 >160	---	▲ 1268	---
Particles >38µm	ASTM D7647 >40	---	▲ 196	---
Particles >71µm	ASTM D7647 >10	---	▲ 20	---
Oil Cleanliness	ISO 4406 (c) >21/19/16	---	▲ 23/22/19	---

FLUID DEGRADATION

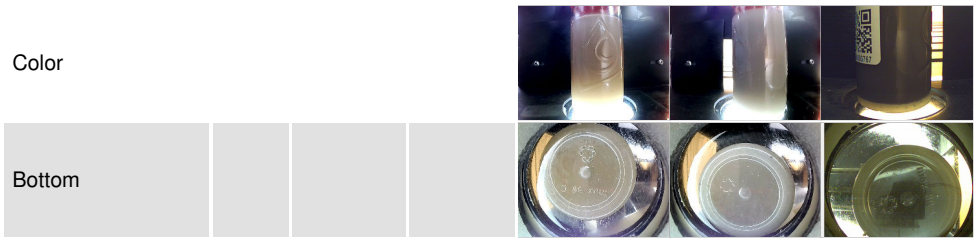
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.40	0.65	0.70	1.04



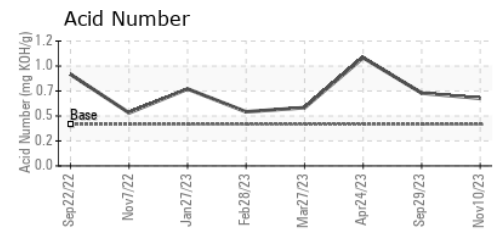
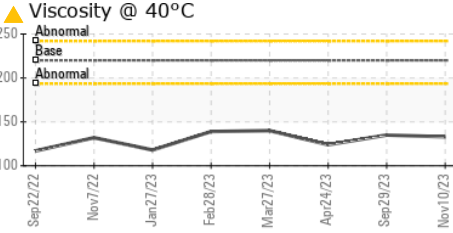
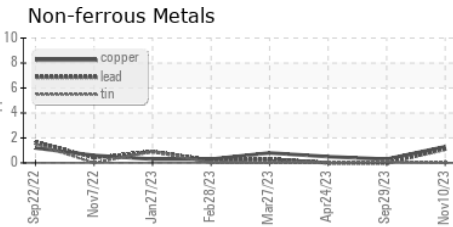
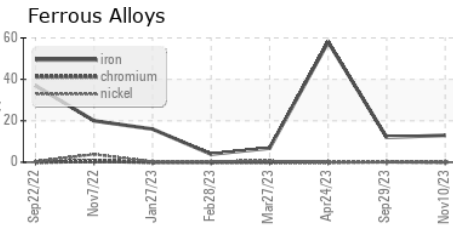
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	▲ HEAVY	NONE	▲ HEAVY
Debris	scalar	*Visual	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	▲ MILKY	NORML	▲ MILKY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	0.2%	▲ 0.2%
Free Water	scalar	*Visual		▲ 1.0	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	▲ 133	▲ 135

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0004819 **Received** : 14 Nov 2023
Lab Number : 06007663 **Diagnosed** : 06 Dec 2023
Unique Number : 10741425 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

CONSTELLIUM
 4805 SECOND STREET
 MUSCLE SHOALS, AL
 US 35661
 Contact: Joel Even
 joel.even@constellium.com
 T: (256)740-7490
 F:

Certificate L2367
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)