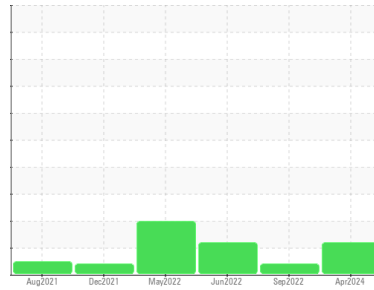




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

**COLD MILL/CM-3STD-2N**

Machine Id

**PAYOFF DR SIDE GEARBOX 1536-001-1265**

Component

**Gearbox**

Fluid

**PETRO CANADA ENDURATEX SYNTHETIC EP 320 (100 GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present 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		<b>KFS0004399</b>	KFS0001950	KFS0001757
Sample Date	Client Info		<b>08 Apr 2024</b>	22 Sep 2022	23 Jun 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>0</b>	0
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	0
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	<1
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0
Copper	ppm	ASTM D5185m	>200	<b>0</b>	0
Tin	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	33	<b>8</b>	76
Barium	ppm	ASTM D5185m	5	<b>0</b>	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1
Magnesium	ppm	ASTM D5185m	5	<b>0</b>	0
Calcium	ppm	ASTM D5185m	5	<b>3</b>	0
Phosphorus	ppm	ASTM D5185m	437	<b>149</b>	289
Zinc	ppm	ASTM D5185m	5	<b>0</b>	7
Sulfur	ppm	ASTM D5185m	5000	<b>8455</b>	7961

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>7</b>	9
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0

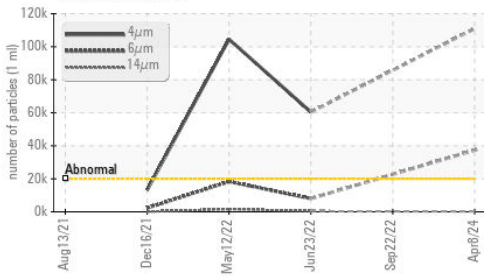
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>▲ 111017</b>	---	▲ 60401
Particles >6µm	ASTM D7647	>5000	<b>▲ 37395</b>	---	▲ 8004
Particles >14µm	ASTM D7647	>640	<b>190</b>	---	374
Particles >21µm	ASTM D7647	>160	<b>13</b>	---	10
Particles >38µm	ASTM D7647	>40	<b>0</b>	---	1
Particles >71µm	ASTM D7647	>10	<b>0</b>	---	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>▲ 24/22/15</b>	---	▲ 23/20/16

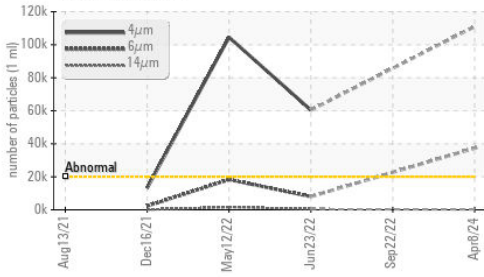
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.7	<b>0.52</b>	0.51

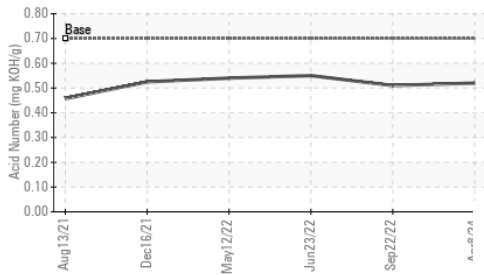
### ▲ Particle Trend



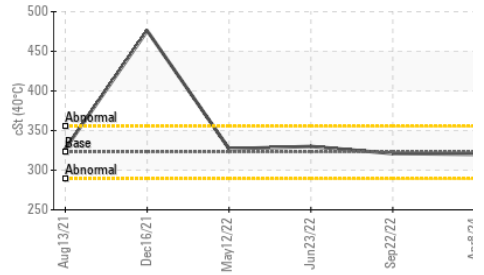
### ▲ Particle Trend



### Acid Number



### Viscosity @ 40°C

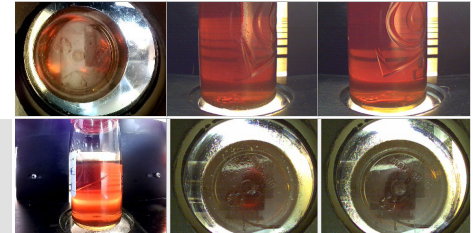


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	323	321	330

SAMPLE IMAGES	method	limit/base	current	history1	history2
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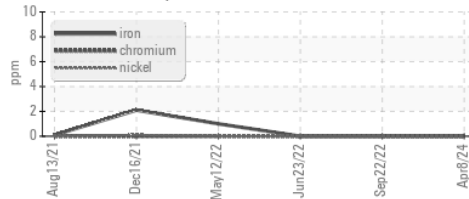
Color



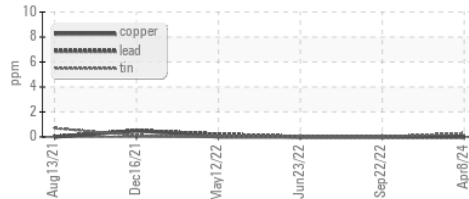
Bottom

### GRAPHS

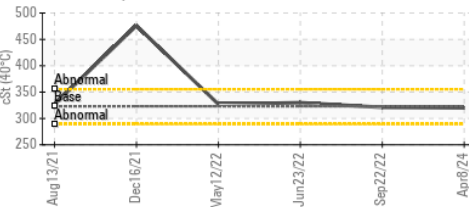
#### Ferrous Alloys



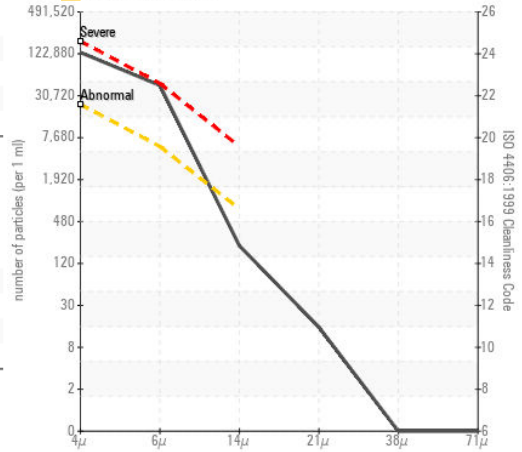
#### Non-ferrous Metals



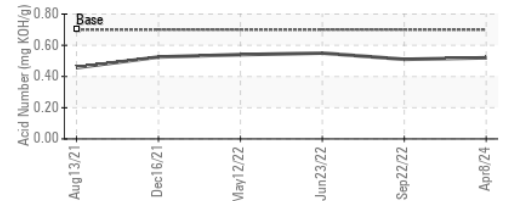
#### Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KFS0004399 **Received** : 09 Apr 2024  
**Lab Number** : 06143019 **Tested** : 10 Apr 2024  
**Unique Number** : 10967827 **Diagnosed** : 11 Apr 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**CONSTELLIUM**  
 4805 SECOND STREET  
 MUSCLE SHOALS, AL  
 US 35661  
 Contact: Randy Nichols  
 randall.nichols@constellium.com  
 T: (256)386-6956  
 F:

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)