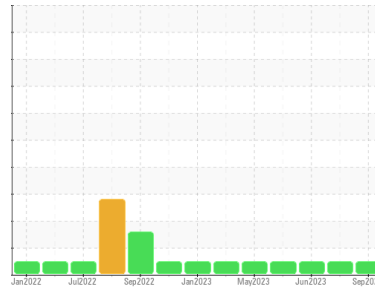




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**COLD MILL/CM-5-STAND**  
 Machine Id  
**Roll Contour HPU 1710-043-0110**  
 Component  
**Hydraulic System**  
 Fluid  
**PETRO CANADA HYDREX AW 68 (150 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### 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>KFS0003355</b>	KFS0003790	KFS0002186
Sample Date	Client Info		<b>11 Sep 2023</b>	03 Jul 2023	28 Jun 2023
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>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>0</b>	8	0
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >20	<b>1</b>	9	4
Tin	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Calcium	ppm	ASTM D5185m 50	<b>51</b>	64	51
Phosphorus	ppm	ASTM D5185m 330	<b>352</b>	346	355
Zinc	ppm	ASTM D5185m 430	<b>445</b>	446	462
Sulfur	ppm	ASTM D5185m 760	<b>853</b>	1065	1056

## CONTAMINANTS

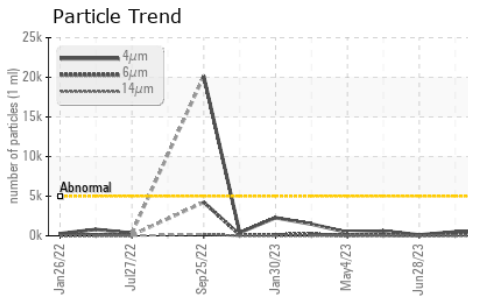
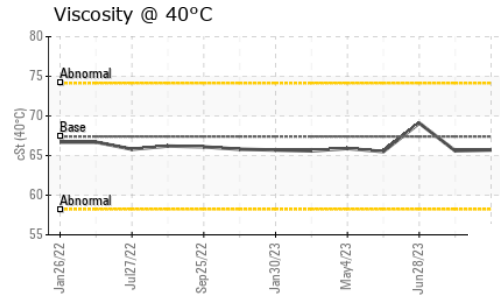
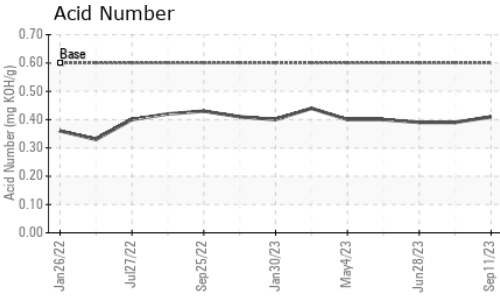
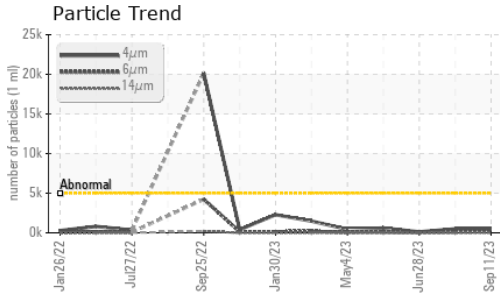
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>0</b>	1	<1
Sodium	ppm	ASTM D5185m	<b>0</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	0

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>456</b>	499	122
Particles >6µm	ASTM D7647	>1300	<b>161</b>	99	36
Particles >14µm	ASTM D7647	>160	<b>12</b>	11	5
Particles >21µm	ASTM D7647	>40	<b>4</b>	4	2
Particles >38µm	ASTM D7647	>10	<b>2</b>	1	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>16/15/11</b>	16/14/11	14/12/10

## FLUID DEGRADATION

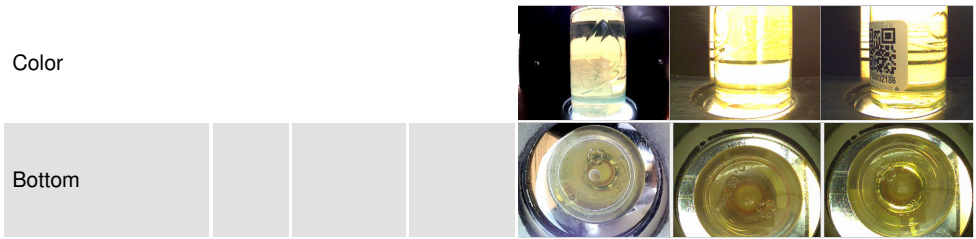
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.60	<b>0.41</b>	0.39	0.39



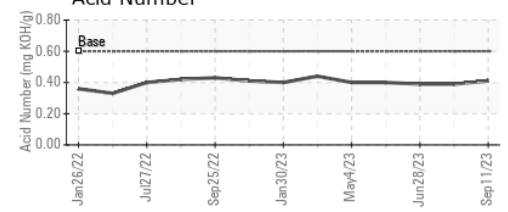
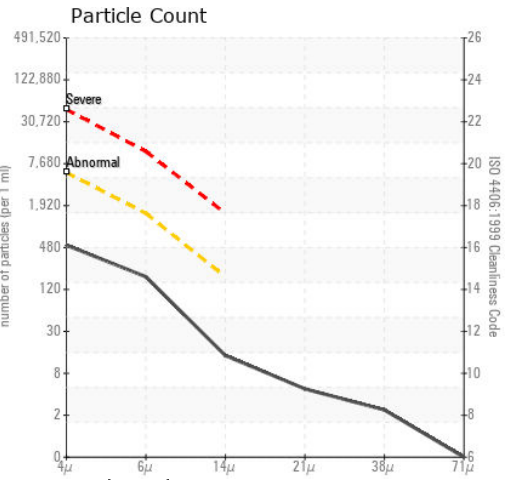
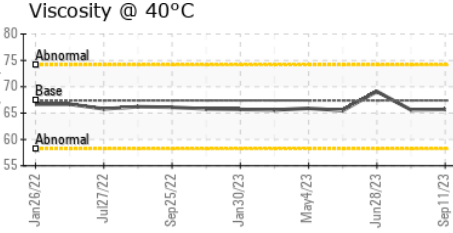
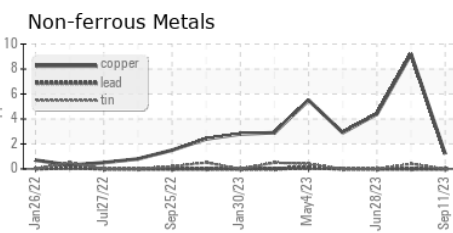
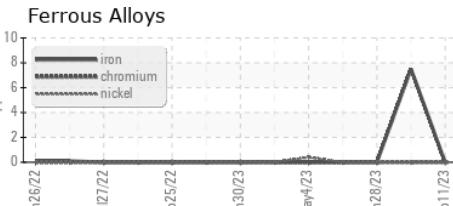
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.4	65.6	69.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KFS0003355 **Received** : 27 Sep 2023  
**Lab Number** : 05962864 **Diagnosed** : 28 Sep 2023  
**Unique Number** : 10669415 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**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)