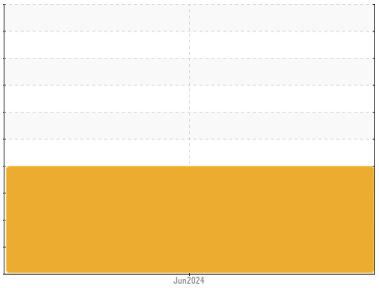
PROBLEM SUMMARY

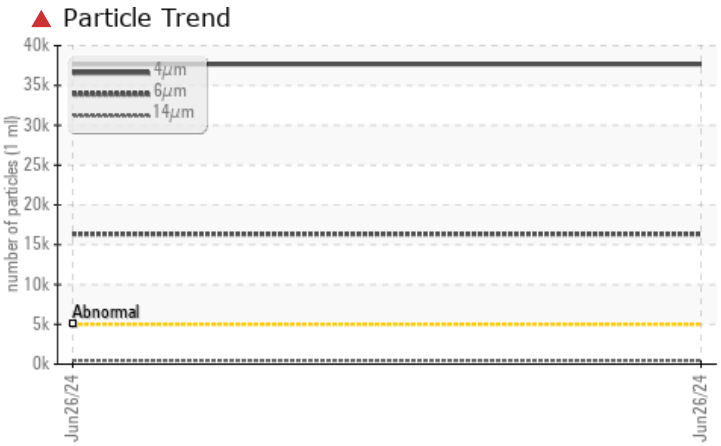
Sample Rating Trend



ISO

Area
Cleveland Cliffs - 888102
Machine Id
RB045
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 68 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

The sample submitted is 8 times dirtier than the ISO dirt count recommendation of 19/16/14.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
Particles >4µm		ASTM D7647	>5000	▲ **37671**	---	---
Particles >6µm		ASTM D7647	>640	▲ **16344**	---	---
Particles >14µm		ASTM D7647	>160	▲ **450**	---	---
Particles >21µm		ASTM D7647	>40	▲ **93**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16/14	▲ **22/21/16**	---	---

Customer Id: CHECOB
Sample No.: E30002545
Lab Number: 02645888
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Tatiana Sorkina +1 (800)263-3939
tsorkina@e360s.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

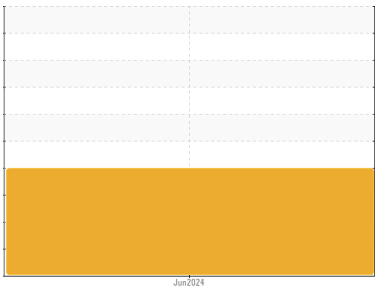
RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
Cleveland Cliffs - 888102
Machine Id
RB045
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 68 (--- GAL)

DIAGNOSIS

Recommendation
The sample submitted is 8 times dirtier than the ISO dirt count recommendation of 19/16/14.

Contamination
Particles >6µm are severely high. Oil Cleanliness are severely high. Particles >14µm are abnormally high. Particles >21µm are abnormally high. Particles >4µm are abnormally high.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Machine ID		Client Info		**Press 601**	---	---
Department		Client Info		**Sales**	---	---
Sample From		Client Info		**Machine**	---	---
Production Stage		Client Info		**Initial**	---	---
Sent to WC		Client Info		**07/03/2024**	---	---
Sample Number		Client Info		**E30002545**	---	---
Sample Date		Client Info		**26 Jun 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

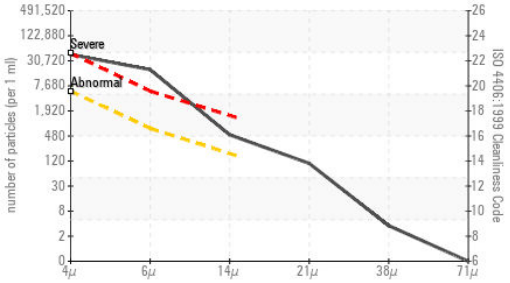
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**<1**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**0**	---	---
Nickel	ppm	ASTM D5185(m)	>20	**0**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**0**	---	---
Lead	ppm	ASTM D5185(m)	>20	**0**	---	---
Copper	ppm	ASTM D5185(m)	>20	**<1**	---	---
Tin	ppm	ASTM D5185(m)	>20	**0**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
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)	0	**<1**	---	---
Barium	ppm	ASTM D5185(m)	0	**0**	---	---
Molybdenum	ppm	ASTM D5185(m)	0	**0**	---	---
Manganese	ppm	ASTM D5185(m)	0	**0**	---	---
Magnesium	ppm	ASTM D5185(m)	0	**1**	---	---
Calcium	ppm	ASTM D5185(m)	50	**46**	---	---
Phosphorus	ppm	ASTM D5185(m)	330	**318**	---	---
Zinc	ppm	ASTM D5185(m)	430	**395**	---	---
Sulfur	ppm	ASTM D5185(m)	760	**717**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

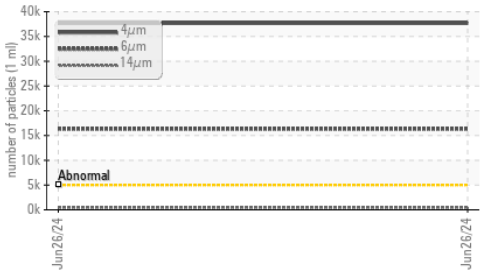
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**0**	---	---
Sodium	ppm	ASTM D5185(m)		**<1**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**0**	---	---
Water	%	ASTM D6304*	>0.05	**0.007**	---	---
ppm Water	ppm	ASTM D6304*	>500	**77**	---	---

OIL ANALYSIS REPORT

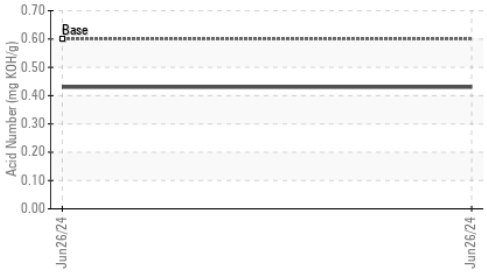
Particle Count



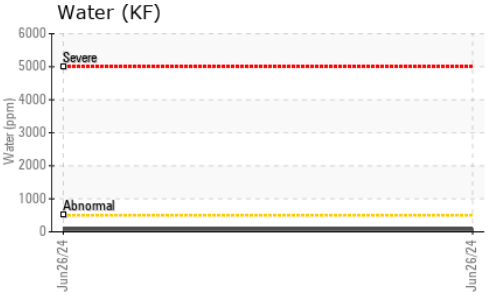
Particle Trend



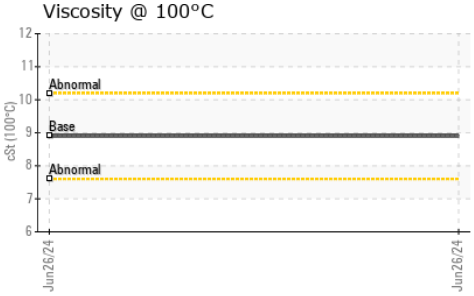
Acid Number



Water (KF)



Viscosity @ 100°C

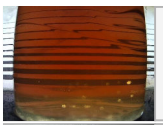


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **37671**	---	---
Particles >6µm		ASTM D7647	>640	▲ **16344**	---	---
Particles >14µm		ASTM D7647	>160	▲ **450**	---	---
Particles >21µm		ASTM D7647	>40	▲ **93**	---	---
Particles >38µm		ASTM D7647	>10	**3**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16/14	▲ **22/21/16**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	**0.43**	---	---

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*	>0.05	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	67.4	**61.5**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	8.9	**8.9**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	105	**120**	---	---

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

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : E30002545 **Received** : 05 Jul 2024
Lab Number : 02645888 **Tested** : 09 Jul 2024
Unique Number : 5811440 **Diagnosed** : 10 Jul 2024 - Tatiana Sorkina
Test Package : IND 2 (Additional Tests: KF, KV100, TAN MAN, VI)

To discuss this sample report, contact Customer Service at 1-905-372-2251.
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.

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