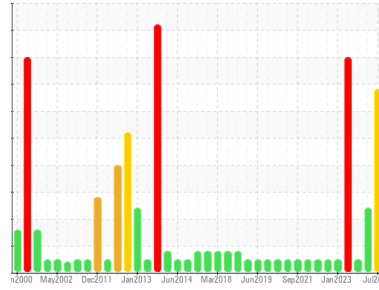




PROBLEM SUMMARY

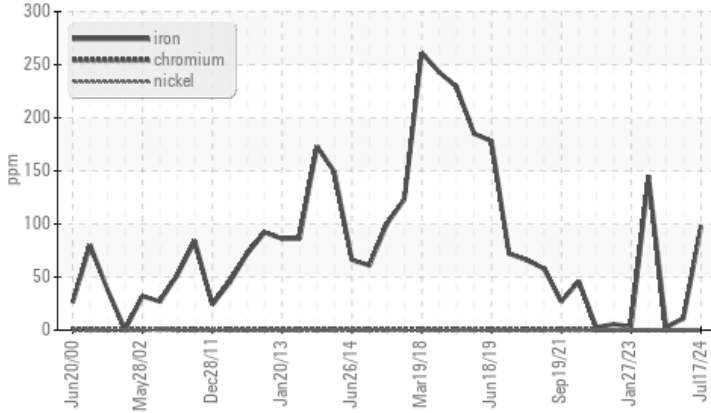
Area
PUMPHOUSE/BACKWASH PUMPS
 Machine Id
C - Backwash Pump 2 - IB
 Component
Lube System
 Fluid
PETRO CANADA HYDREX AW 100 (1 GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>20	▲ 98	11	3
Appearance	scalar	Visual*	NORML	▲ HAZY	▲ LAYRD	NORML

Customer Id: LEWBOSC
 Sample No.: WC0968464
 Lab Number: 02648446
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

WATER



10 Jan 2024 Diag: Kevin Marson

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Free water present. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

[view report](#)



NORMAL



16 Aug 2023 Diag: Wes Davis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

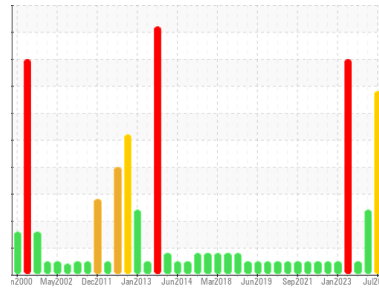
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



PUMPHOUSE/BACKWASH PUMPS

C - Backwash Pump 2 - IB

Component
Lube System

Fluid
PETRO CANADA HYDREX AW 100 (1 GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Iron ppm levels are severe. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0968464	WC0898673	WC0850113
Sample Date	Client Info	17 Jul 2024	10 Jan 2024	16 Aug 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		SEVERE	ABNORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184* >DFLT	0	0	0
Iron	ppm ASTM D5185(m) >20	▲ 98	11	3
Chromium	ppm ASTM D5185(m) >20	0	0	0
Nickel	ppm ASTM D5185(m) >20	<1	0	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >20	<1	<1	0
Lead	ppm ASTM D5185(m) >20	<1	<1	0
Copper	ppm ASTM D5185(m) >20	1	1	<1
Tin	ppm ASTM D5185(m) >20	0	0	0
Antimony	ppm ASTM D5185(m)	0	0	0
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	0	0	0
Barium	ppm ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm ASTM D5185(m) 0	0	0	0
Manganese	ppm ASTM D5185(m) 0	<1	0	0
Magnesium	ppm ASTM D5185(m) 0	0	<1	<1
Calcium	ppm ASTM D5185(m) 50	49	48	50
Phosphorus	ppm ASTM D5185(m) 330	337	329	346
Zinc	ppm ASTM D5185(m) 430	416	421	423
Sulfur	ppm ASTM D5185(m) 760	2572	2577	2452
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	4	2	2
Sodium	ppm ASTM D5185(m)	<1	0	<1
Potassium	ppm ASTM D5185(m) >20	0	<1	<1
Water	% ASTM D6304* >1	0.001	---	---
ppm Water	ppm ASTM D6304* >10000	12	---	---

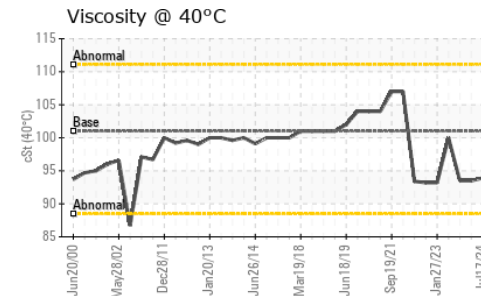
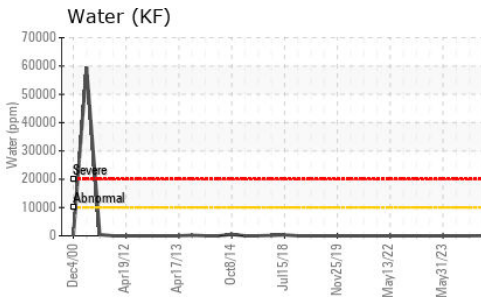
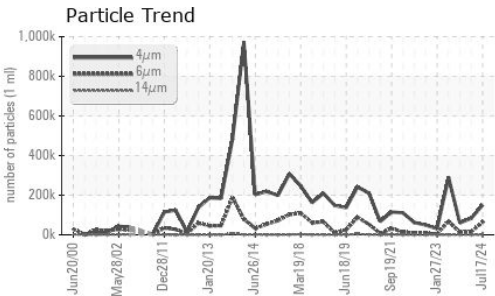
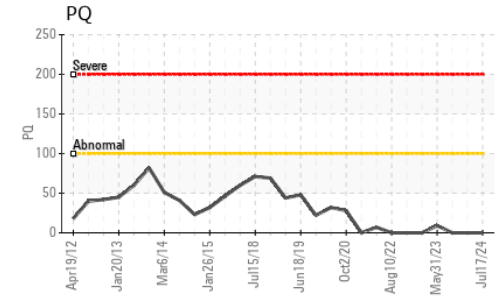
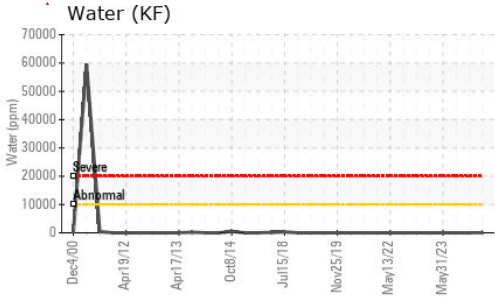
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	150499	83525	59976
Particles >6µm	ASTM D7647 >10240000	63731	15241	12588
Particles >14µm	ASTM D7647 >10240000	225	363	392
Particles >21µm	ASTM D7647 >2560000	45	52	85
Particles >38µm	ASTM D7647 >640000	3	2	1
Particles >71µm	ASTM D7647 >160000	1	1	0

Oil Cleanliness	ISO 4406 (c) >--/30/30	24/23/15	24/21/16	23/21/16
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OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.35	0.43	0.62

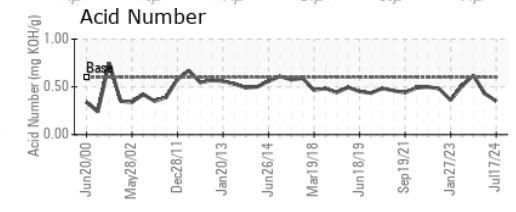
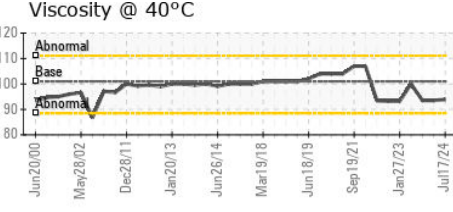
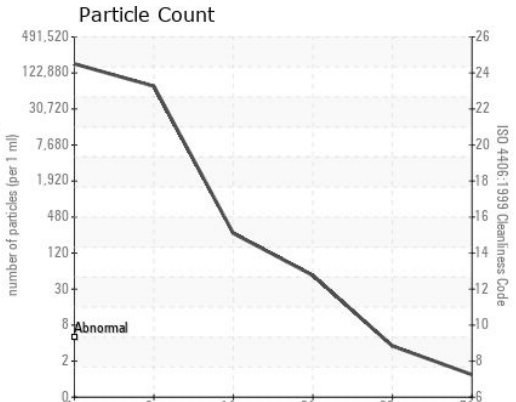
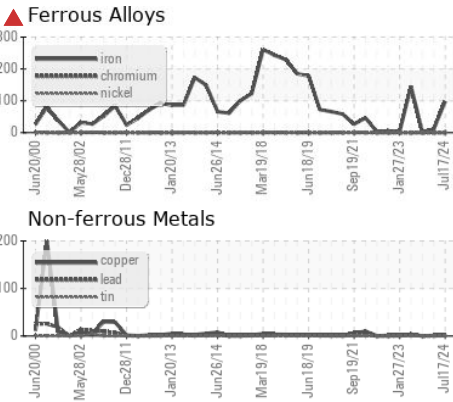
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	LIGHT	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	HAZY	LAYRD	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>1	NEG	.2%	NEG
Free Water	scalar	Visual*		NEG	5%	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	101	93.9	93.5	93.5

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0968464 **Received** : 17 Jul 2024
Lab Number : **02648446** **Tested** : 18 Jul 2024
Unique Number : 5813998 **Diagnosed** : 19 Jul 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, KF, PQ)

STELCO - BOSC - Basic Oxygen Slab Caster
 2330 Regional Road #3, Door: BOSC8
 NANTICOKE, ON
 CA N0A 1L0
 Contact: Tom Walden
 Thomas.Walden@stelco.com
 T: (519)587-4541
 F: (519)587-7702

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.