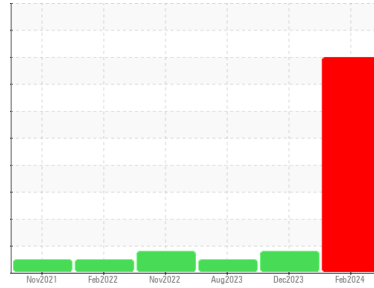


PROBLEM SUMMARY

Area
ROLL SHOP
Machine Id
[ROLL SHOP] BIG GRINDER SPINDLE
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 32 (--- GAL)

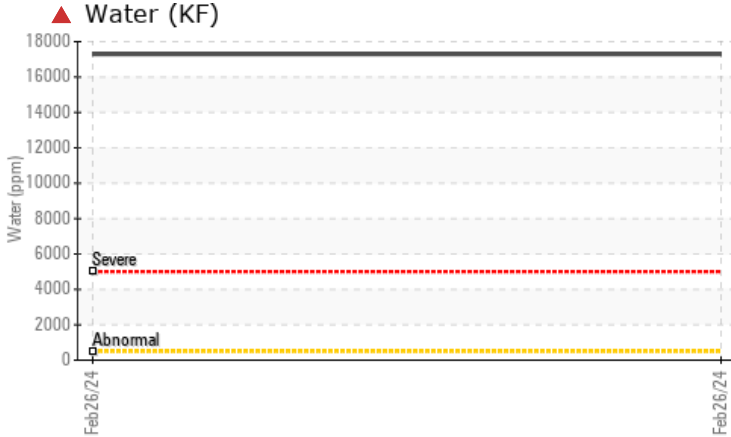
Sample Rating Trend



WATER



COMPONENT CONDITION SUMMARY



RECOMMENDATION

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. There is too much water present in this sample to perform a particle count or accurate viscosity test.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ATTENTION	NORMAL
Water	%	ASTM D6304	>0.05	▲ 1.73	---	---
ppm Water	ppm	ASTM D6304	>500	▲ 17300	---	---
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	NEG	NEG
Free Water	scalar	*Visual		▲ >10%	NEG	NEG

Customer Id: SDITER
Sample No.: PCA0113017
Lab Number: 06102443
Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

26 Dec 2023 Diag: Jonathan Hester

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



14 Aug 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

view report



22 Nov 2022 Diag: Angela Borella

ISO

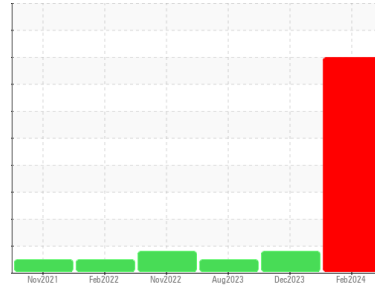


No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
ROLL SHOP
Machine Id
[ROLL SHOP] BIG GRINDER SPINDLE
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 32 (--- GAL)



DIAGNOSIS

▲ Recommendation

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. There is too much water present in this sample to perform a particle count or accurate viscosity test.

Wear

All component wear rates are normal.

▲ Contamination

There is a high concentration of water present in the oil. Excessive free water present.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0113017	PCA0107740	PCA0101460
Sample Date	Client Info	26 Feb 2024	26 Dec 2023	14 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	ATTENTION	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0
Chromium	ppm	ASTM D5185m >20	0	0
Nickel	ppm	ASTM D5185m >20	0	0
Titanium	ppm	ASTM D5185m	0	0
Silver	ppm	ASTM D5185m	0	0
Aluminum	ppm	ASTM D5185m >20	0	0
Lead	ppm	ASTM D5185m >20	<1	0
Copper	ppm	ASTM D5185m >20	<1	<1
Tin	ppm	ASTM D5185m >20	0	0
Vanadium	ppm	ASTM D5185m	<1	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<1	0
Barium	ppm	ASTM D5185m 0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0
Manganese	ppm	ASTM D5185m 0	0	0
Magnesium	ppm	ASTM D5185m 0	1	<1
Calcium	ppm	ASTM D5185m 50	37	53
Phosphorus	ppm	ASTM D5185m 330	295	299
Zinc	ppm	ASTM D5185m 430	363	380
Sulfur	ppm	ASTM D5185m 760	847	846

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	0
Sodium	ppm	ASTM D5185m	<1	<1
Potassium	ppm	ASTM D5185m >20	0	0
Water	%	ASTM D6304 >0.05	▲ 1.73	---
ppm Water	ppm	ASTM D6304 >500	▲ 17300	---

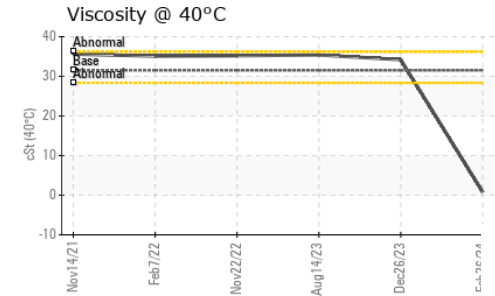
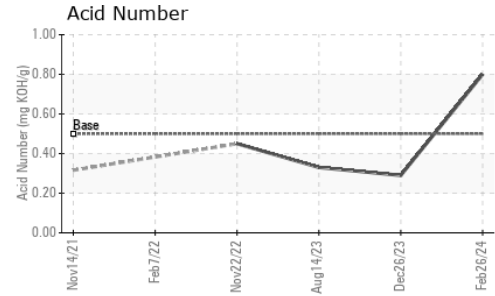
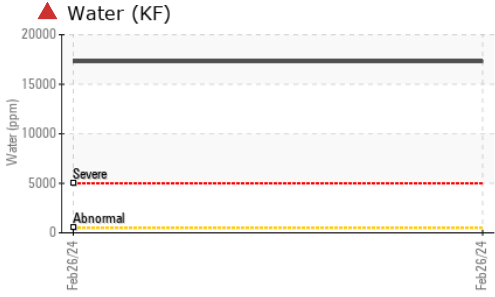
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	---	● 6965	1974
Particles >6µm	ASTM D7647 >1300	---	912	672
Particles >14µm	ASTM D7647 >160	---	69	50
Particles >21µm	ASTM D7647 >40	---	17	12
Particles >38µm	ASTM D7647 >10	---	0	0
Particles >71µm	ASTM D7647 >3	---	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	---	● 20/17/13	18/17/13

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.50	0.80	0.29

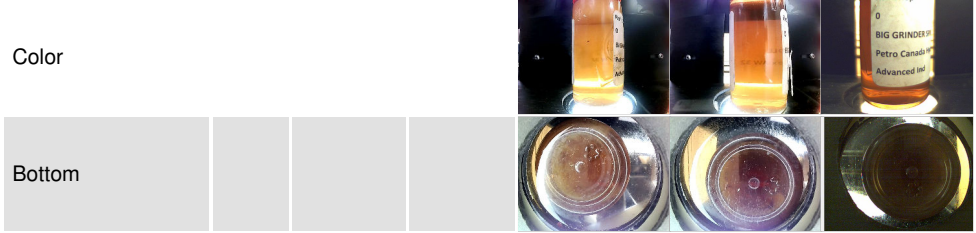
OIL ANALYSIS REPORT



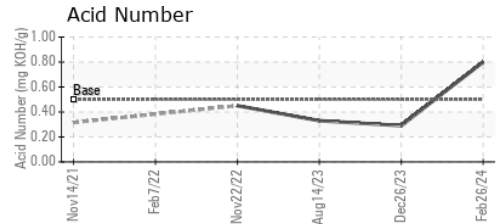
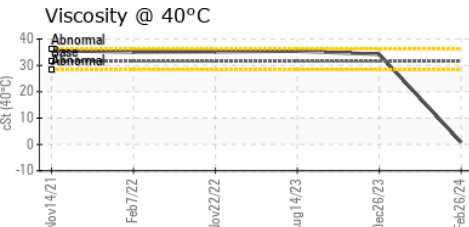
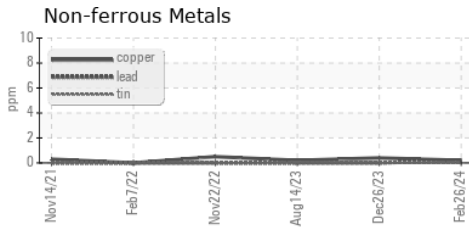
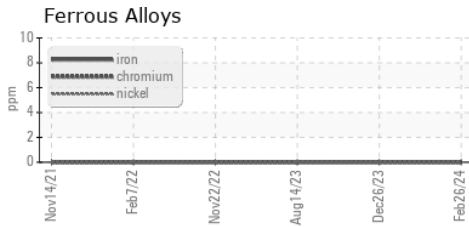
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	NEG
Free Water	scalar	*Visual		▲ >10%	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	31.5	0.8	34.2	35.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0113017 **Received** : 27 Feb 2024
Lab Number : 06102443 **Tested** : 29 Feb 2024
Unique Number : 10900673 **Diagnosed** : 29 Feb 2024 - Don Baldrige
Test Package : PLANT

SDI - Steel Dynamics Inc. - Heartland
 455 West Industrial Drive
 Terre Haute, IN
 US 47802
 Contact: BRAD ELLIS
 brad.ellis@steeldynamics.com

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)