

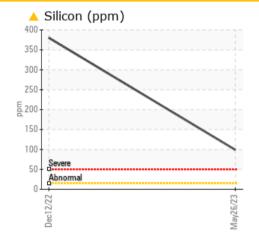
# **PROBLEM SUMMARY**

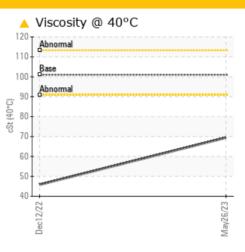
#### Area BATCH SYSTEM 3 Machine Id BS3 HOMO Component

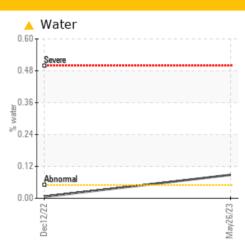
Hydraulic System

PETRO CANADA HYDREX AW 100 (--- LTR)

# COMPONENT CONDITION SUMMARY







#### RECOMMENDATION

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

# PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	
Silicon	ppm	ASTM D5185m	>15	<u> </u>	9380	
Water	%	ASTM D6304	>0.05	<b>6</b> 0.088 A	0.006	
ppm Water	ppm	ASTM D6304	>500	<u> </u>	64.4	
Debris	scalar	*Visual	NONE	🔺 MODER	LIGHT	
Free Water	scalar	*Visual		<u> </u>	NEG	
Visc @ 40°C	cSt	ASTM D445	101	<b>6</b> 9.38	45.8	

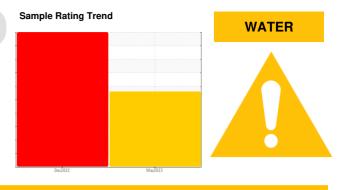
Customer Id: KRAMASIOW Sample No.: USP248899 Lab Number: 05861894 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

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.			
Alert			?	We were unable to perform a particle count due to a high concentration of particles present in this sample.			
Other Action (see Note)	DONE	Jun 05 2023	?	No recommended actions			

# HISTORICAL DIAGNOSIS



12 Dec 2022 Diag: Jonathan Hester

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample. The copper level is severe. Moderate concentration of visible metal present. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid.





# **OIL ANALYSIS REPORT**

Sample Rating Trend

WATER

# Area BATCH SYSTEM 3 Machine Id BS3 HOMO

Component Hydraulic System Fluid PETRO CANADA HYDREX AW 100 (--- LTR)

## DIAGNOSIS

## Recommendation

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

#### Wear

All component wear rates are normal.

#### Contamination

Elemental level of silicon (Si) above normal. Moderate concentration of visible dirt/debris present in the oil. Free water present. There is a trace of moisture present in the oil.

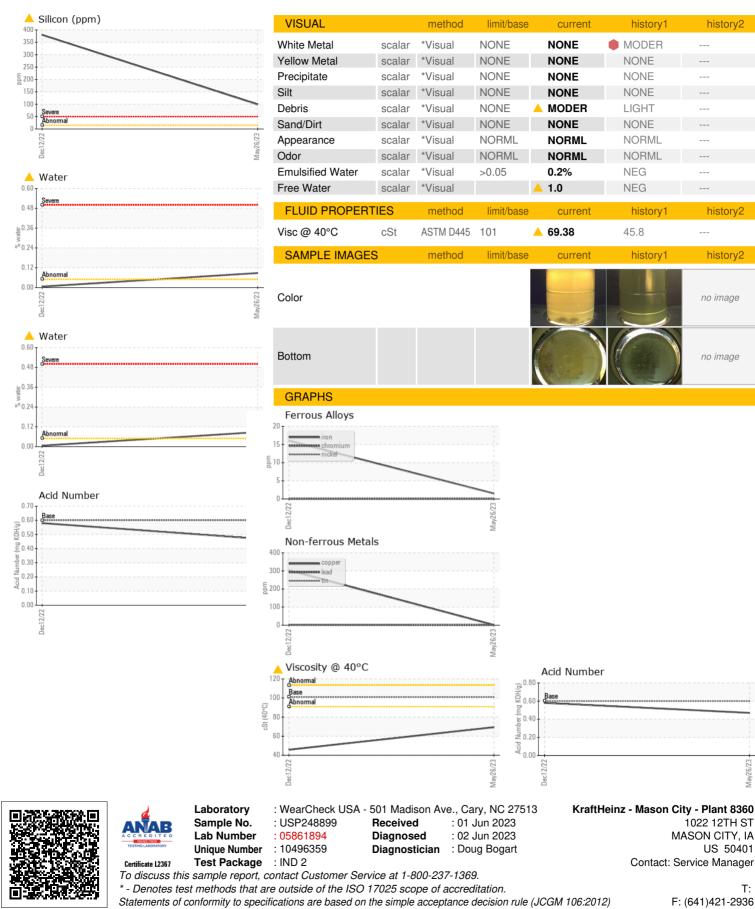
## Fluid Condition

The oil viscosity is lower than normal. Confirmed. The AN level is acceptable for this fluid.

0	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP248899	USP234446	
Sample Date		Client Info		26 May 2023	12 Dec 2022	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	SEVERE	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	16	
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	<1	
Lead	ppm	ASTM D5185m	>20	0	1	
Copper	ppm	ASTM D5185m	>20	<1	9303	
Tin	ppm	ASTM D5185m	>20	0	4	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	3	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	0	5	99	
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		5 0	99 <1	
,						
Manganese	ppm	ASTM D5185m	0	0	<1	
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0	0 <1	<1 <1	
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 50	0 <1 50	<1 <1 79	
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 50 330	0 <1 50 344	<1 <1 79 547	  
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 50 330 430	0 <1 50 344 427	<1 <1 79 547 495	  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 50 330 430 760	0 <1 50 344 427 906	<1 <1 79 547 495 1500	  
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 0 50 330 430 760	0 <1 50 344 427 906 current	<1 <1 79 547 495 1500 history1	    history2
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 0 50 330 430 760	0 <1 50 344 427 906 current ▲ 99	<1 <1 79 547 495 1500 history1 380	   history2
Magnese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	0 0 50 330 430 760 limit/base >15	0 <1 50 344 427 906 <u>current</u> 99 0	<1 <1 79 547 495 1500 history1  380 <1	    history2 
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 50 330 430 760 limit/base >15 >20	0 <1 50 344 427 906 <u>current</u> 99 0 1	<1 <1 79 547 495 1500 history1 380 <1 0	   history2  
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 50 330 430 760 limit/base >15 >20 >0.05	0 <1 50 344 427 906 current	<1 <1 79 547 495 1500 history1 380 <1 0 0.006	   history2



# **OIL ANALYSIS REPORT**



Contact/Location: Service Manager - KRAMASIOW

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