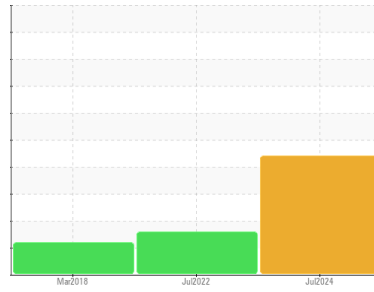
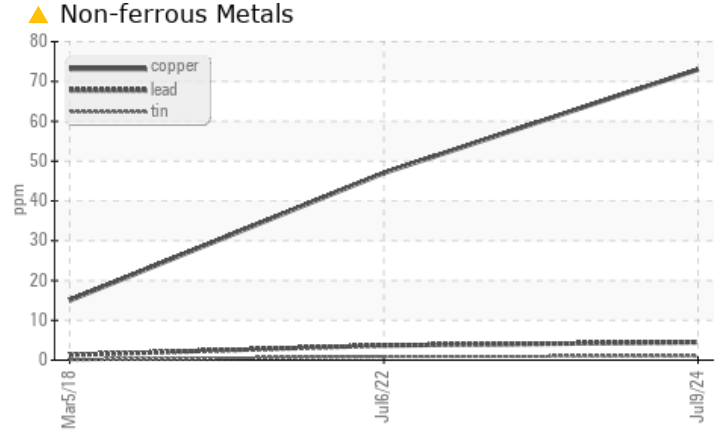
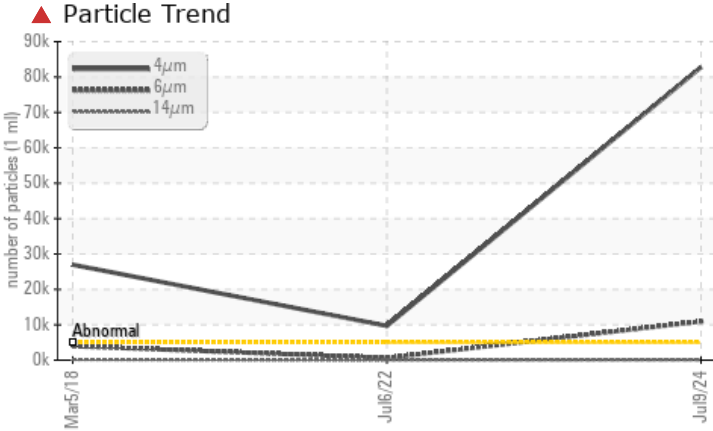




Machine Id  
**#2 SCHWING (S/N 133768)**  
 Component  
**Circulating Hydraulic System**  
 Fluid  
**PETRO CANADA HYDREX AW 46 (--- LTR)**



**COMPONENT CONDITION SUMMARY**



**RECOMMENDATION**

The component was not specified, however we determined the component was a hydraulic system based on the type of fluid used. Please specify component type with your next sample. 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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

**PROBLEMATIC TEST RESULTS**

Sample Status		SEVERE	ATTENTION	ABNORMAL
Copper	ppm ASTM D5185(m) >20	▲ 73	● 47	▲ 15
Particles >4µm	ASTM D7647 >5000	▲ 82792	● 9686	▲ 26977
Particles >6µm	ASTM D7647 >1300	▲ 10930	● 622	▲ 3953
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 24/21/14	● 20/16/12	▲ 22/19/15

Customer Id: ONT130MIS  
 Sample No.: PC0058422  
 Lab Number: 02647808  
 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](mailto:Kevin.Marson@wearcheck.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Alert	---	---	?	The component was not specified, however we determined the component was a hydraulic system based on the type of fluid used. Please specify component type with your next sample.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	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.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

## HISTORICAL DIAGNOSIS

### WEAR



#### 06 Jul 2022 Diag: Kevin Marson

We recommend you service the filters on this component. Resample at the next service interval to monitor. Copper ppm levels are noted. All other component wear rates are normal. There is a light 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](#)



### ISO



#### 05 Mar 2018 Diag: Kevin Marson

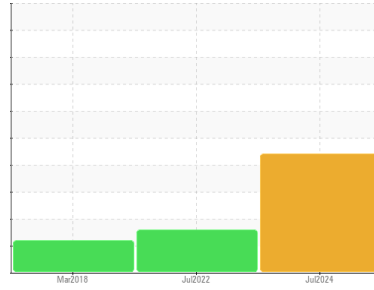
Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Particles >14µm are notably high. The AN level is acceptable for this fluid. The condition of the sample is suitable for further service. The sample is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

[view report](#)





Machine Id  
**#2 SCHWING (S/N 133768)**  
Component  
**Circulating Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX AW 46 (--- LTR)**



**DIAGNOSIS**

**▲ Recommendation**  
The component was not specified, however we determined the component was a hydraulic system based on the type of fluid used. Please specify component type with your next sample. 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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

**▲ Wear**  
Copper ppm levels are abnormal. Oil cooler core leaching or motor piston wear is indicated.

**▲ Contamination**  
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

**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			<b>PC0058422</b>	PC0058223	PC383496
Sample Date	Client Info			<b>09 Jul 2024</b>	06 Jul 2022	05 Mar 2018
Machine Age	hrs	Client Info		<b>7322</b>	1247	12379
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Changed</b>	Not Changd	Not Changed
Sample Status				<b>SEVERE</b>	ATTENTION	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	NEG

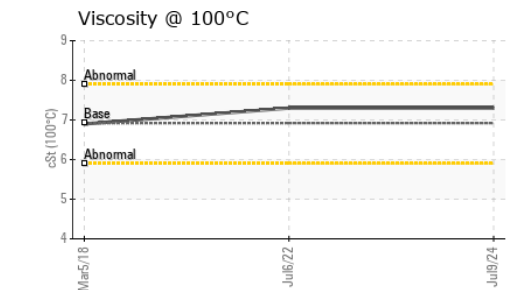
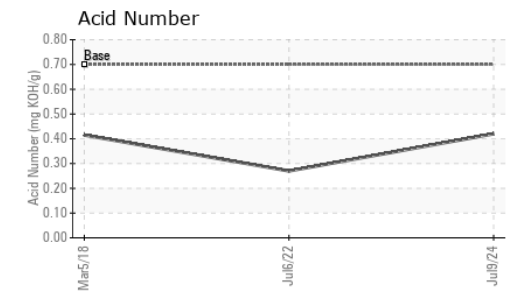
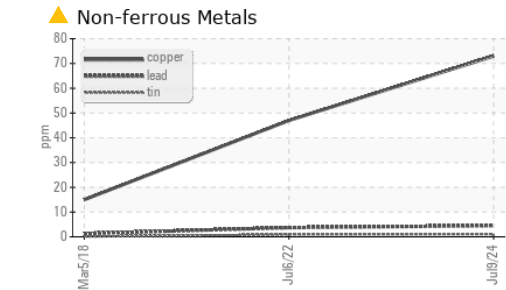
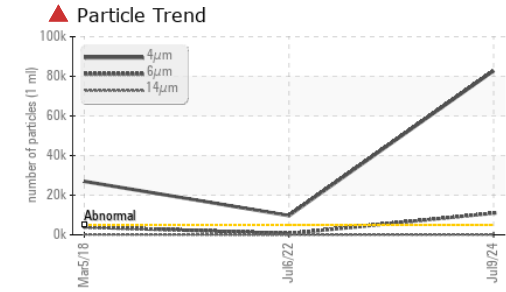
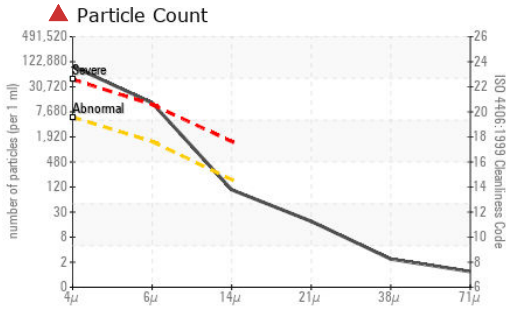
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>5</b>	<1	1
Chromium	ppm	ASTM D5185(m)	>20	<b>3</b>	<1	3
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>20	<b>4</b>	4	1
Copper	ppm	ASTM D5185(m)	>20	<b>73</b>	47	15
Tin	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185(m)	50	<b>51</b>	49	53
Phosphorus	ppm	ASTM D5185(m)	330	<b>322</b>	311	331
Zinc	ppm	ASTM D5185(m)	430	<b>376</b>	392	429
Sulfur	ppm	ASTM D5185(m)	760	<b>809</b>	809	723
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>1</b>	<1	<1
Sodium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 82792</b>	9686	▲ 26977	
Particles >6µm	ASTM D7647	>1300	<b>▲ 10930</b>	622	▲ 3953	
Particles >14µm	ASTM D7647	>160	<b>91</b>	35	177	
Particles >21µm	ASTM D7647	>40	<b>16</b>	8	43	
Particles >38µm	ASTM D7647	>10	<b>2</b>	1	0	
Particles >71µm	ASTM D7647	>3	<b>1</b>	1	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 24/21/14</b>	20/16/12	▲ 22/19/15	

# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0058422  
**Lab Number** : 02647808  
**Unique Number** : 5813360  
**Test Package** : IND 2 ( Additional Tests: Bottom, KV100, VI )

ONTARIO CLEAN WATER AGENCY- SOUTH PEEL FACILITIES  
 1300 LAKESHORE RD  
 MISSISSAUGA, ON  
 CA L5E 1E9

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.

Contact: Angelo Magnifico  
 amagnifico@ocwa.com  
 T: (905)274-1223  
 F: (905)274-2076

FLUID DEGRADATION						
	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	<b>0.42</b>	0.27	0.415
VISUAL						
	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES						
	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	<b>45.8</b>	46.0	46.3
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	<b>7.3</b>	7.3	6.9
Viscosity Index (VI)	Scale	ASTM D2270*	104	<b>121</b>	120	104

SAMPLE IMAGES						
	method	limit/base	current	history1	history2	
Color						
Bottom						

