

**WEAR**



Machine Id  
**SILO #2 (S/N 233026)**  
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. 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.

**Wear**

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

**Contamination**

There is a moderate 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>PC0058415</b>	PC0058231	---
Sample Date	Client Info			<b>09 Jul 2024</b>	06 Jul 2022	---
Machine Age	hrs	Client Info		<b>129225</b>	58968	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

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

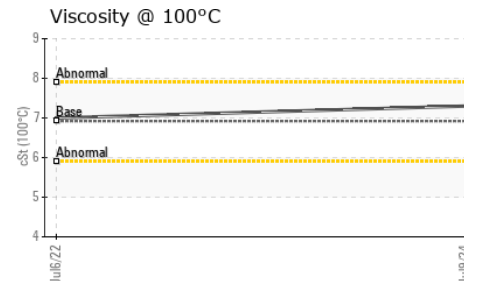
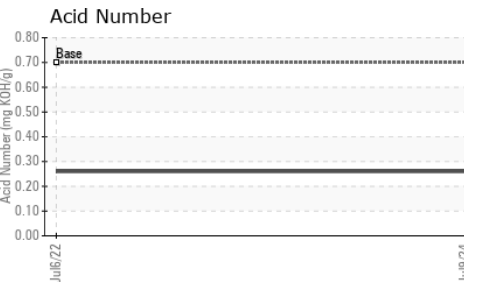
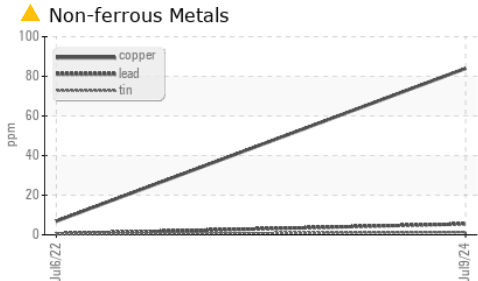
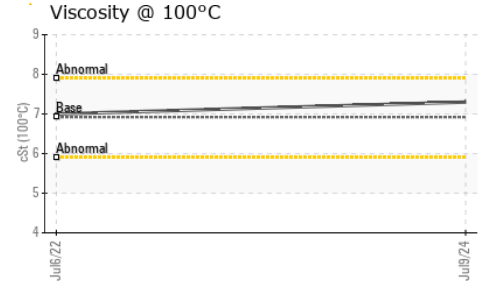
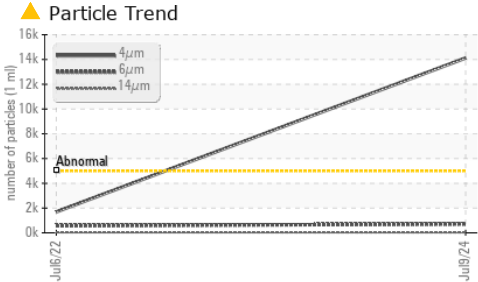
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>1</b>	1	---
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	---
Lead	ppm	ASTM D5185(m)	>20	<b>6</b>	<1	---
Copper	ppm	ASTM D5185(m)	>20	<b>▲ 84</b>	7	---
Tin	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	---
Calcium	ppm	ASTM D5185(m)	50	<b>44</b>	41	---
Phosphorus	ppm	ASTM D5185(m)	330	<b>313</b>	289	---
Zinc	ppm	ASTM D5185(m)	430	<b>361</b>	360	---
Sulfur	ppm	ASTM D5185(m)	760	<b>760</b>	2835	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

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

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 14121</b>	1694	---	
Particles >6µm	ASTM D7647	>1300	<b>712</b>	569	---	
Particles >14µm	ASTM D7647	>160	<b>40</b>	44	---	
Particles >21µm	ASTM D7647	>40	<b>14</b>	8	---	
Particles >38µm	ASTM D7647	>10	<b>2</b>	0	---	
Particles >71µm	ASTM D7647	>3	<b>1</b>	0	---	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 21/17/12</b>	18/16/13	---	

# OIL ANALYSIS REPORT



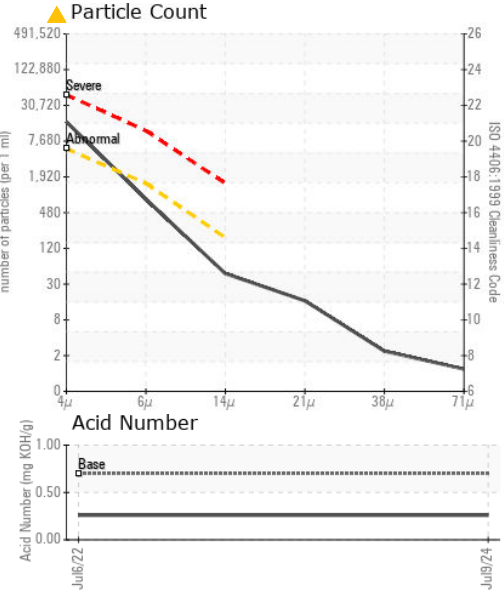
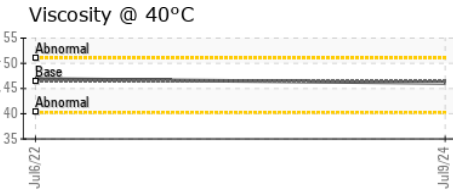
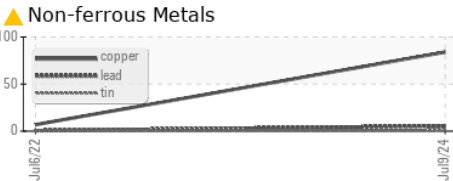
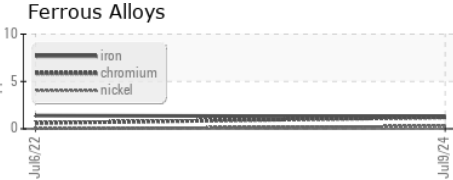
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	<b>0.26</b>	0.26	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	---
Free Water	scalar	Visual*		<b>NEG</b>	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	<b>46.1</b>	46.9	---
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	<b>7.3</b>	7	---
Viscosity Index (VI)	Scale	ASTM D2270*	104	<b>120</b>	105	---

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

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0058415  
**Lab Number** : 02647809  
**Unique Number** : 5813361  
**Test Package** : IND 2 ( Additional Tests: KV100, VI )

**Received** : 15 Jul 2024  
**Tested** : 16 Jul 2024  
**Diagnosed** : 16 Jul 2024 - Kevin Marson

ONTARIO CLEAN WATER AGENCY- SOUTH PEEL FACILITIES  
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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.