

Machine Id  
**IMM #17 (S/N 61030560)**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA HYDREX AW 46 (2200 LTR)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

**Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC0080840</b>	PC0076919	PC0062440
Sample Date	Client Info	<b>15 Jan 2024</b>	11 Jul 2023	21 Sep 2022
Machine Age	yrs Client Info	<b>0</b>	0	0
Oil Age	yrs Client Info	<b>0</b>	0	5
Oil Changed	Client Info	<b>N/A</b>	N/A	Not Changd
Sample Status		<b>NORMAL</b>	NORMAL	ATTENTION

**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>1</b>	2	<1
Chromium	ppm ASTM D5185(m) >20	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	0
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>	0	0
Lead	ppm ASTM D5185(m) >20	<b>0</b>	0	0
Copper	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185(m) >20	<b>0</b>	0	0
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>	<1	<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>	<1	0
Calcium	ppm ASTM D5185(m) 50	<b>39</b>	43	39
Phosphorus	ppm ASTM D5185(m) 330	<b>311</b>	311	322
Zinc	ppm ASTM D5185(m) 430	<b>329</b>	337	309
Sulfur	ppm ASTM D5185(m) 760	<b>786</b>	736	756
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

**CONTAMINANTS**

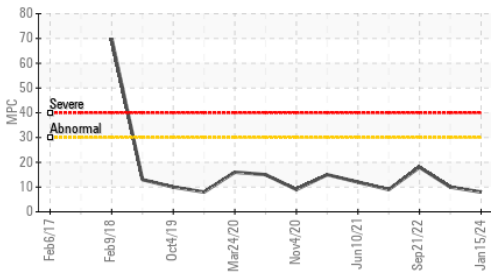
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Sodium	ppm ASTM D5185(m)	<b>0</b>	<1	<1
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	0

**FLUID CLEANLINESS**

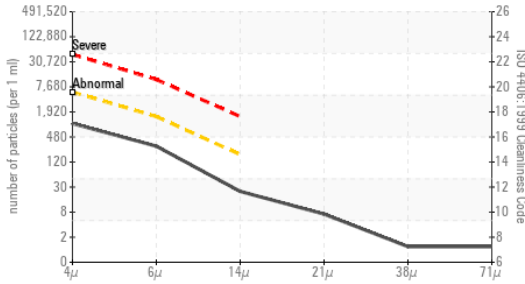
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>886</b>	1268	▲ 6541
Particles >6µm	ASTM D7647 >1300	<b>254</b>	341	▲ 1966
Particles >14µm	ASTM D7647 >160	<b>21</b>	23	125
Particles >21µm	ASTM D7647 >40	<b>6</b>	5	30
Particles >38µm	ASTM D7647 >10	<b>1</b>	0	1
Particles >71µm	ASTM D7647 >3	<b>1</b>	0	1
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>17/15/12</b>	17/16/12	▲ 20/18/14

# OIL ANALYSIS REPORT

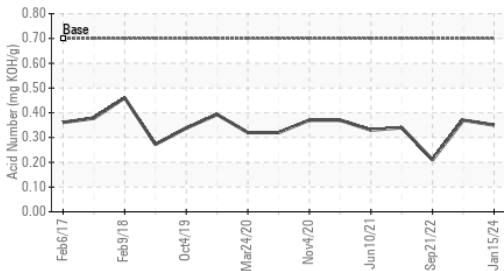
Varnish Potential



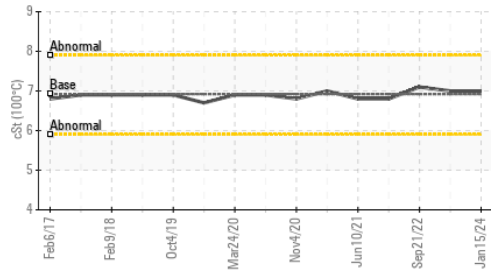
Particle Count



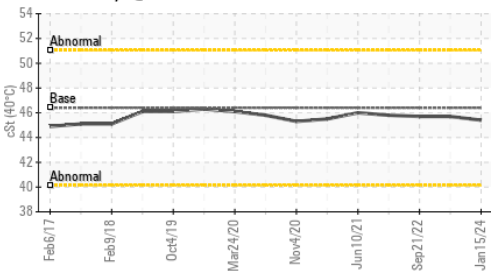
Acid Number



Viscosity @ 100°C



Viscosity @ 40°C

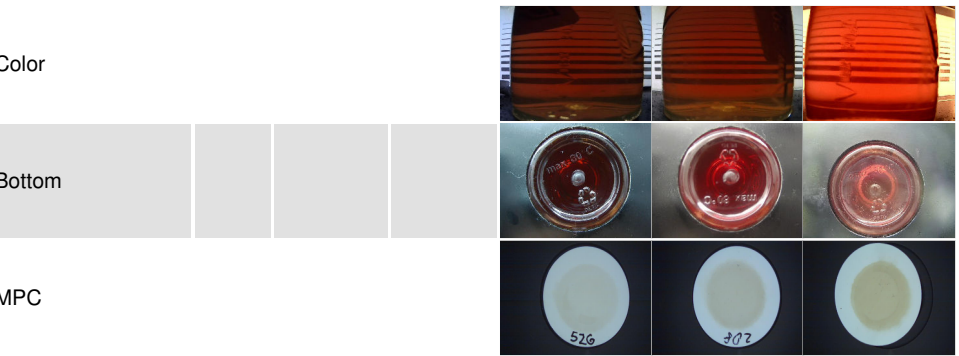


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	<b>0.35</b>	0.37	0.21
MPC Varnish Potential	Scale	ASTM D7843(m)*	>15	<b>8</b>	10	▲ 18

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</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>	VLITE	NONE
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>45.4</b>	45.7	45.7
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	<b>7</b>	7	7.1
Viscosity Index (VI)	Scale	ASTM D2270*	104	<b>111</b>	110	114

**SAMPLE IMAGES**

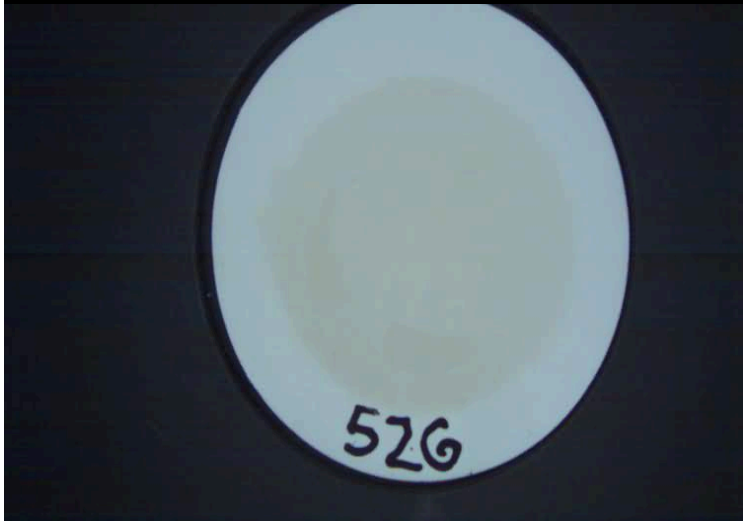


**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0080840 **Received** : 26 Jan 2024  
**Lab Number** : **02611526** **Diagnosed** : 29 Jan 2024  
**Unique Number** : 5720621 **Diagnostician** : Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KV100, MPC, VI )

**ROPAK PACKAGING CANADA**  
 2240 WYECROFT RD  
 OAKVILLE, ON  
 CA L6L 6M1  
 Contact: Frank Maio  
 Frank.Maio@mauserpackaging.com  
 T: (905)465-9019  
 F:

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.

MPC (Varnish Test)



Sample Color & Clarity



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