

Machine Id
IMM #25 (S/N 5142163)
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (1000 LTR)

DIAGNOSIS

Recommendation

We advise that you check for visible metal particles in the oil. We recommend an early resample to monitor this condition. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).

Wear

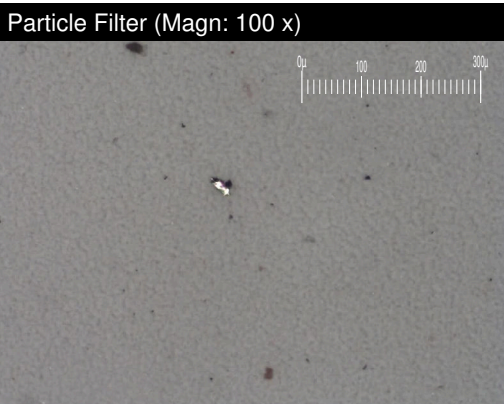
Light concentration of visible metal present.

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	PC0087479	PC0080864	PC0076977
Sample Date	Client Info	20 Jun 2024	15 Jan 2024	11 Jul 2023
Machine Age	mths	Client Info	0	0
Oil Age	mths	Client Info	0	0
Oil Changed	Client Info	Not Chngd	N/A	N/A
Sample Status		MARGINAL	SEVERE	SEVERE

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >20	3	1	<1
Chromium	ppm	ASTM D5185(m) >20	<1	0	0
Nickel	ppm	ASTM D5185(m) >20	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	<1	<1	0
Lead	ppm	ASTM D5185(m) >20	0	0	0
Copper	ppm	ASTM D5185(m) >20	4	<1	1
Tin	ppm	ASTM D5185(m) >20	0	0	0
Antimony	ppm	ASTM D5185(m)	<1	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 0	<1	0	<1
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	2	<1	1
Calcium	ppm	ASTM D5185(m) 50	69	45	27
Phosphorus	ppm	ASTM D5185(m) 330	311	342	352
Zinc	ppm	ASTM D5185(m) 430	370	398	336
Sulfur	ppm	ASTM D5185(m) 760	730	798	723
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

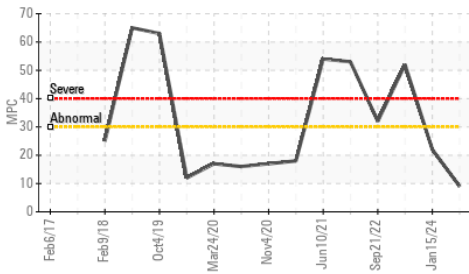
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >15	1	1	0
Sodium	ppm	ASTM D5185(m)	2	0	<1
Potassium	ppm	ASTM D5185(m) >20	<1	<1	<1

FLUID CLEANLINESS

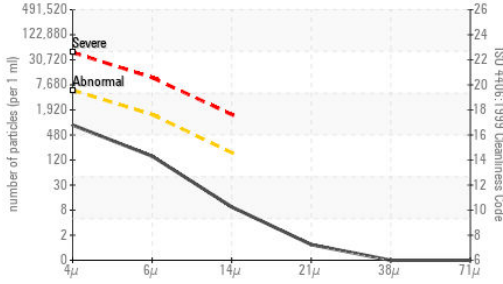
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	730	▲ 95007	726
Particles >6µm	ASTM D7647 >1300	131	▲ 27887	207
Particles >14µm	ASTM D7647 >160	8	▲ 652	22
Particles >21µm	ASTM D7647 >40	1	▲ 85	6
Particles >38µm	ASTM D7647 >10	0	2	1
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	17/14/10	▲ 24/22/17	17/15/12

OIL ANALYSIS REPORT

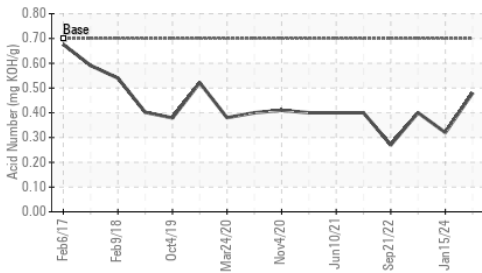
Varnish Potential



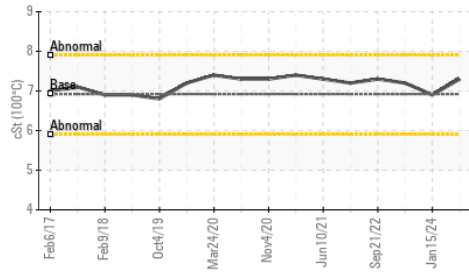
Particle Count



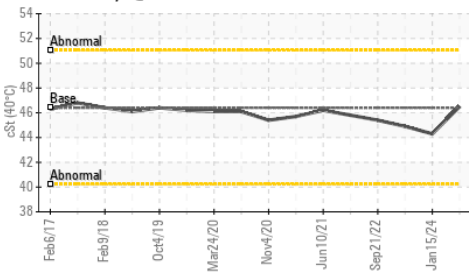
Acid Number



Viscosity @ 100°C



Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	0.48	0.32	0.40
MPC Varnish Potential	Scale	ASTM D7843(m)*	>15	9	▲ 22	▲ 52

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	46.5	44.3	44.9
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	7.3	6.9	7.2
Viscosity Index (VI)	Scale	ASTM D2270*	104	118	112	121

SAMPLE IMAGES

	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter				no image	no image
MPC					



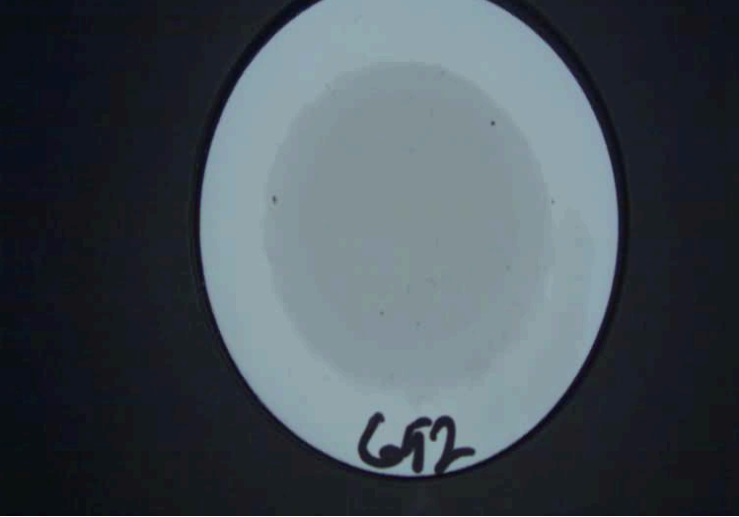
Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0087479
Lab Number : **02647652**
Unique Number : 5813204
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FILTERPATCH, KV100, MPC, PrtFilter, TAN Man, W)ntact: Frank Maio

ROPAK PACKAGING CANADA
 2240 WYECROFT RD
 OAKVILLE, ON
 CA L6L 6M1

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.

Frank.Maio@mauserpackaging.com
 T: (905)465-9019
 F:

MPC (Varnish Test)



Sample Color & Clarity



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