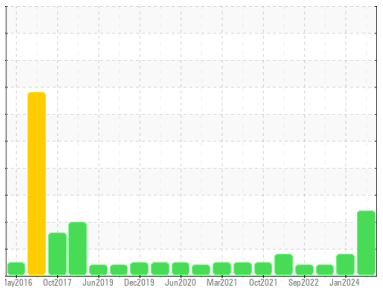
OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Machine Id
IMM #4 (S/N 2018165)
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (2000 LTR)

DIAGNOSIS

Recommendation
We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. 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). Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear
Light concentration of visible metal present.

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 still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Particle Filter (Magn: 100 x)

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0087474**	PC0076983	PC0076954
Sample Date		Client Info		**20 Jun 2024**	15 Jan 2024	11 Jul 2023
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**ABNORMAL**	ATTENTION	MARGINAL

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)	>40	**2**	2	1
Chromium	ppm	ASTM D5185(m)	>4	**<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)	>4	**<1**	<1	0
Lead	ppm	ASTM D5185(m)	>10	**0**	0	0
Copper	ppm	ASTM D5185(m)	>60	**2**	1	<1
Tin	ppm	ASTM D5185(m)	>4	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	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

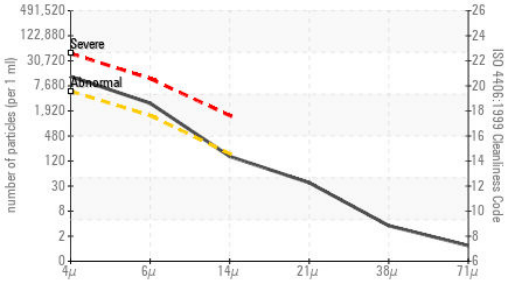
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**<1**	0	<1
Barium	ppm	ASTM D5185(m)	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**2**	<1	1
Calcium	ppm	ASTM D5185(m)	50	**49**	39	39
Phosphorus	ppm	ASTM D5185(m)	330	**311**	330	356
Zinc	ppm	ASTM D5185(m)	430	**330**	379	395
Sulfur	ppm	ASTM D5185(m)	760	**698**	753	723
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

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

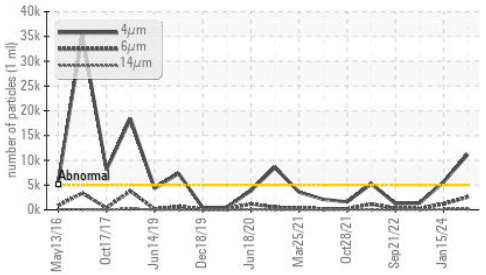
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **11158**	5596	1335
Particles >6µm		ASTM D7647	>1300	▲ **2572**	1174	236
Particles >14µm		ASTM D7647	>160	**137**	114	10
Particles >21µm		ASTM D7647	>40	**32**	31	2
Particles >38µm		ASTM D7647	>10	**3**	4	0
Particles >71µm		ASTM D7647	>3	**1**	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/19/14**	20/17/14	18/15/10

OIL ANALYSIS REPORT

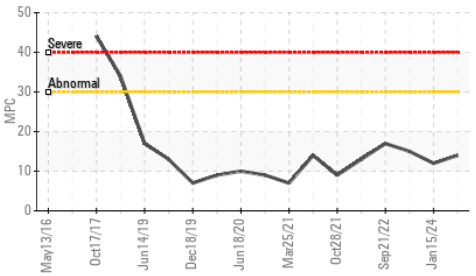
Particle Count



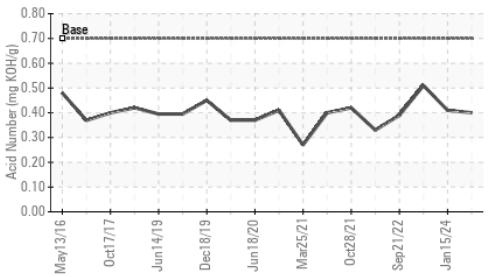
Particle Trend



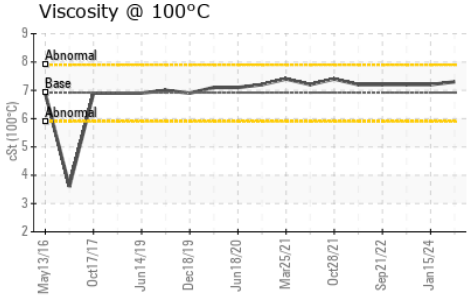
Varnish Potential



Acid Number



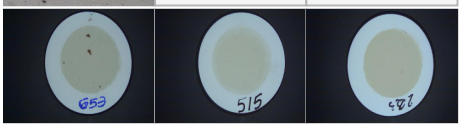
Viscosity @ 100°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	**0.40**	0.41	0.51
MPC Varnish Potential	Scale	ASTM D7843(m)*	>15	**14**	12	▲ 15

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	**LIGHT**	VLITE	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	**45.7**	45.2	45.3
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	**7.3**	7.2	7.2
Viscosity Index (VI)	Scale	ASTM D2270*	104	**121**	119	119

SAMPLE IMAGES						
Color						
Bottom						
PrtFilter					*no image*	*no image*
MPC						

CALA
ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0087474 **Received** : 12 Jul 2024
Lab Number : 02647653 **Tested** : 19 Jul 2024
Unique Number : 5813205 **Diagnosed** : 19 Jul 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FILTERPATCH, KV100, MPC, PrtFilter, TAN Man, VC)

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.

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OAKVILLE, ON
CA L6L 6M1
Contact: Frank Maio
Frank.Maio@mauserpackaging.com
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MPC (Varnish Test)

Sample Color & Clarity

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