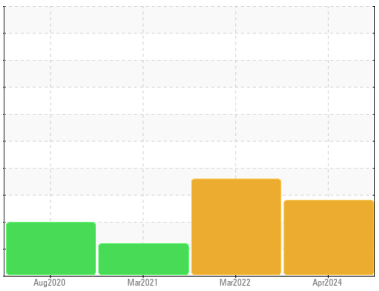
OIL ANALYSIS REPORT

Sample Rating Trend



CONTAMINANT

Machine Id
OR890
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX MV 46 (--- GAL)

DIAGNOSIS

Recommendation
The filter change at the time of sampling has been noted. 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
All component wear rates are normal.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0087908**	PC0058485	PC0039687
Sample Date		Client Info		**20 Apr 2024**	21 Mar 2022	25 Mar 2021
Machine Age	hrs	Client Info		**8510**	7718	7497
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	SEVERE	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**2**	2	3
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	<1
Nickel	ppm	ASTM D5185(m)	>10	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)		**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	**<1**	0	<1
Lead	ppm	ASTM D5185(m)	>10	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>75	**14**	13	23
Tin	ppm	ASTM D5185(m)	>10	**0**	<1	<1
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	**4**	5	9
Barium	ppm	ASTM D5185(m)	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	<1
Manganese	ppm	ASTM D5185(m)	1	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**<1**	<1	1
Calcium	ppm	ASTM D5185(m)	50	**165**	183	400
Phosphorus	ppm	ASTM D5185(m)	330	**479**	521	366
Zinc	ppm	ASTM D5185(m)	430	**223**	228	495
Sulfur	ppm	ASTM D5185(m)	760	**1251**	1329	1341
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

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

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**21537**	69498	29828
Particles >6µm		ASTM D7647	>1300	**4512**	11387	4555
Particles >14µm		ASTM D7647	>160	**301**	574	216
Particles >21µm		ASTM D7647	>40	**59**	111	53
Particles >38µm		ASTM D7647	>10	**4**	4	4
Particles >71µm		ASTM D7647	>3	**0**	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**22/19/15**	23/21/16	22/19/15

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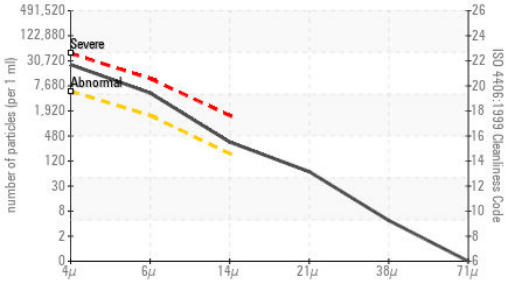
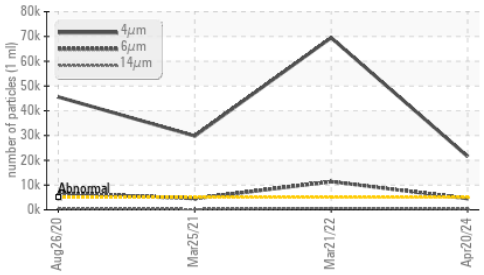
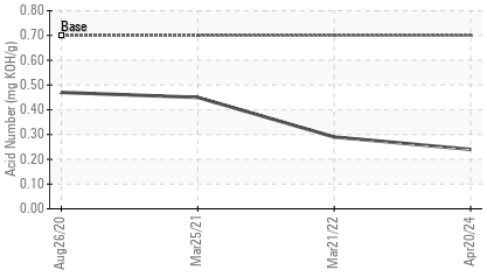
Particle Count



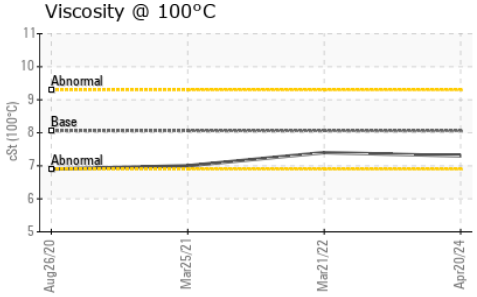
Particle Trend



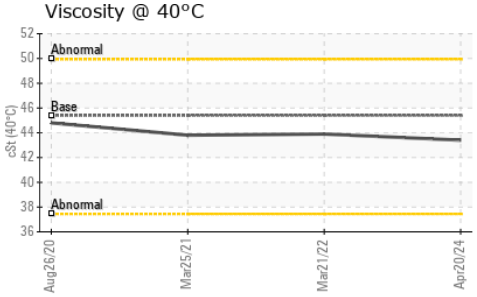
Acid Number



Viscosity @ 100°C



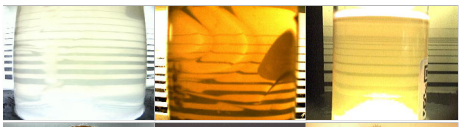
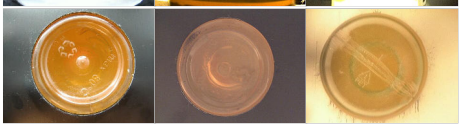
Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	**0.24**	0.29	0.45

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	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**	VLITE	NONE
Appearance	scalar	Visual*	NORML	▲ **HAZY**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	**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)	45.4	**43.4**	43.9	43.8
Visc @ 100°C	cSt	ASTM D7279(m)	8.06	**7.3**	7.4	7.0
Viscosity Index (VI)	Scale	ASTM D2270*	151	**131**	133	118

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0087908
Lab Number : 02631350
Unique Number : 5772503
Test Package : IND 2 (Additional Tests: KV100, VI)

Received : 25 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 26 Apr 2024 - Kevin Marson

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
151 Ram Forest Rd,
Stouffville, ON
CA L4A 2G8
Contact: Shannon Abbott
sabbott@gipi.com
T: (905)750-5900
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.