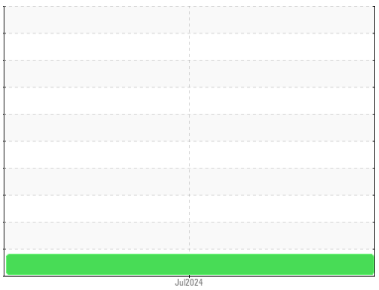
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
HYDREX MV 22
Component
New (Unused) Oil
Fluid
PETRO CANADA HYDREX MV 22 (--- GAL)

DIAGNOSIS

Recommendation
This is the baseline readout on this new (unused) oil. The fluid is suitable for service.

Contamination
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the new (unused) oil.

Fluid Condition
Viscosity of sample indicates oil is within ISO 15 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0087418**	---	---
Sample Date		Client Info		**16 Jul 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>5	**<1**	---	---
Chromium	ppm	ASTM D5185(m)	>5	**0**	---	---
Nickel	ppm	ASTM D5185(m)	>5	**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)	>5	**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>5	**<1**	---	---
Lead	ppm	ASTM D5185(m)	>5	**0**	---	---
Copper	ppm	ASTM D5185(m)	>5	**0**	---	---
Tin	ppm	ASTM D5185(m)	>5	**0**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

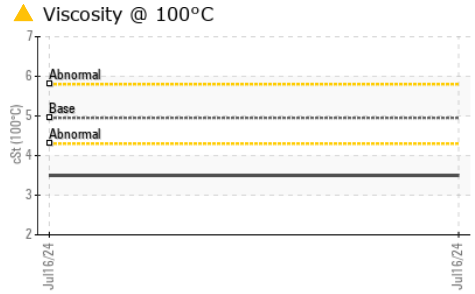
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**5**	---	---
Barium	ppm	ASTM D5185(m)	0	**0**	---	---
Molybdenum	ppm	ASTM D5185(m)	0	**2**	---	---
Manganese	ppm	ASTM D5185(m)	1	**0**	---	---
Magnesium	ppm	ASTM D5185(m)	0	**20**	---	---
Calcium	ppm	ASTM D5185(m)	50	**71**	---	---
Phosphorus	ppm	ASTM D5185(m)	330	**253**	---	---
Zinc	ppm	ASTM D5185(m)	430	**309**	---	---
Sulfur	ppm	ASTM D5185(m)	760	**578**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

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

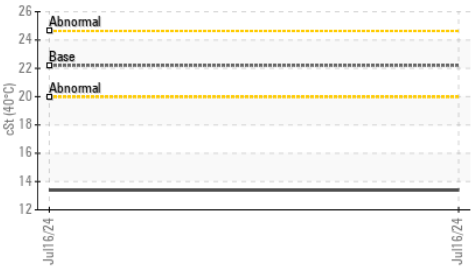
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	---	---
Nitration	Abs/cm	ASTM D7624*		**2.8**	---	---
Sulfation	Abs/.1mm	ASTM D7415*		**16.2**	---	---

OIL ANALYSIS REPORT

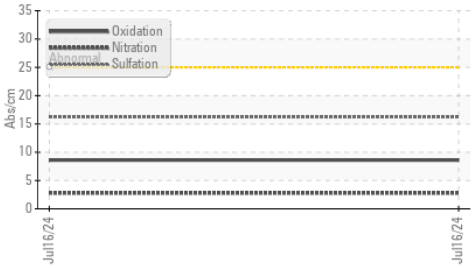
Viscosity @ 100°C



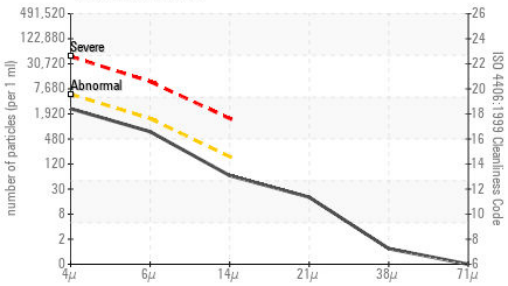
Viscosity @ 40°C



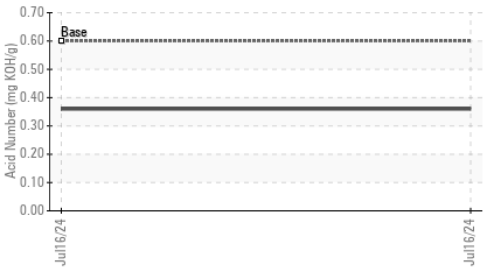
FT-IR (Direct Trend)



Particle Count



Acid Number

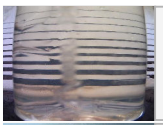
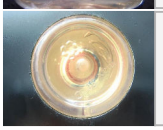


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**2241**	---	---
Particles >6µm		ASTM D7647	>1300	**630**	---	---
Particles >14µm		ASTM D7647	>160	**56**	---	---
Particles >21µm		ASTM D7647	>40	**17**	---	---
Particles >38µm		ASTM D7647	>10	**1**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**18/16/13**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		**8.6**	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	**0.36**	---	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	22.2	▲ **13.4**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	4.95	▲ **3.5**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	156	**146**	---	---

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

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0087418 **Received** : 18 Jul 2024
Lab Number : 02648679 **Tested** : 19 Jul 2024
Unique Number : 5814231 **Diagnosed** : 21 Jul 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, VI)

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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