

BLUE CART

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend







New (Unused) Oil Fluid PETRO CANADA HYDREX AW 32 (--- GAL)

### DIAGNOSIS

Component

#### Recommendation

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

#### Wear

{not applicable}

#### Contamination

There is no indication of any contamination in the new (unused) oil.

#### Fluid Condition

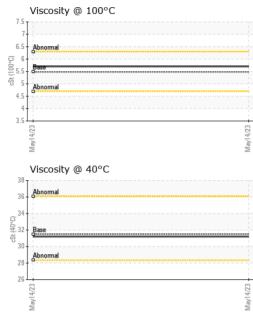
The condition of the oil is suitable for service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0072087		
Sample Date		Client Info		14 May 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		0		
Chromium	ppm	ASTM D5185(m)		0		
Nickel	ppm	ASTM D5185(m)		0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)		0		
Lead	ppm	ASTM D5185(m)		0		
Copper	ppm	ASTM D5185(m)		0		
Tin	ppm	ASTM D5185(m)		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	<1		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	0	0		
Manganese	ppm	ASTM D5185(m)	0	0		
Magnesium	ppm	ASTM D5185(m)	0	<1		
Calcium	ppm	ASTM D5185(m)	50	52		
Phosphorus	ppm	ASTM D5185(m)	330	357		
Zinc	ppm	ASTM D5185(m)	430	438		
Sulfur	ppm	ASTM D5185(m)	760	739		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)		<1		
Sodium	ppm	ASTM D5185(m)		0		
Potassium	ppm	ASTM D5185(m)	>20	<1		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0		
Nitration	Abs/cm	ASTM D7624*		1.7		
Sulfation	Abs/.1mm	ASTM D7415*		11.6		
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		2.2		



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VISUAL



			method	limit/base	current	history i	nistory
	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 PROPE	RTIES	method	limit/base	current	history1	history
	Visc @ 40°C	cSt	ASTM D7279(m)	31.5	31.2		
	Visc @ 100°C	cSt	ASTM D7279(m)	5.48	5.7		
	Viscosity Index (VI)	Scale	ASTM D2270*	110	124		
I	SAMPLE IMAG	AES.	method	limit/base	current	history1	histor
			method	11111/0430		motory	
	Color					no image	no imag
	Bottom					no image	no imag
1	GRAPHS						
	Iron (ppm)				Lead (ppm)		
	1 1				1 1		
udd	0 -			dd	0 -		
	-1			8	1 R		
	May14/23			May14/23	May 14/23		
	Aluminum (ppm)				Chromium (pp	m)	
	1				1		
mqq	0 -			- dd	0 -		
	-14			May14/23	23 23		
	May 14/22			16			
	N.			Ma	May14/23		
	∠ Copper (ppm)			Ma	Silicon (ppm)		
_				0.	Silicon (ppm)		
udd					Silicon (ppm)		
udd	Copper (ppm)			0. Ę. 0.	Silicon (ppm)		
udd	Copper (ppm)			0.	Silicon (ppm)		
	Copper (ppm)			0. Ę. 0.	Silicon (ppm)		
	Copper (ppm)			0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	Silicon (ppm)		
cSt (40°C)	Copper (ppm)			0. 60.0 627b/Veq 100	Additives		
CSt (40°C)	Copper (ppm)			0. 60.0 627b/Veq 100	Additives		
4 (300) (400) 2 2 2 2 2	Copper (ppm)			0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	Silicon (ppm)		
CS1(40°C) 5 CS1(40°C) 6	Copper (ppm)				Silicon (ppm)	CEMTOL	
4 (3-0+) 153 2	Copper (ppm)	75 Apple Received Diagnos	<b>1</b> : 18 /	0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	Silicon (ppm)	CEMTOL	41 Minto F
52 (40-02) 52 (40-02) 52 (40-02)	Copper (ppm)	Received Diagnos Diagnosi	d : 187 ed : 217 ician : Kev	ington, ON L Aug 2023 Aug 2023 rin Marson	Additives		41 Minto F Guelph CA N1K
4 (200) 13 2	Copper (ppm)	Received Diagnos Diagnos Tests: F1	d : 187 ed : 217 ician : Kew '-IR, ICP-New	ington, ON L Aug 2023 Aug 2023 rin Marson wOil, KV100,	Additives		Manufactu 41 Minto F Guelph, CA N1K ct: Vikas Ve

To discuss this sample report, 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.

CALA

ISO 17025:2017 Accredited Laboratory

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