

## **OIL ANALYSIS REPORT**

Sample Rating Trend







Machine Id **100-040** Component Hydraulic System Fluid PETRO CANADA HYDREX AW 46 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### Fluid Condition

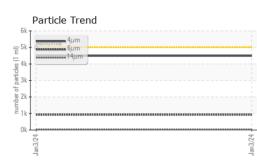
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

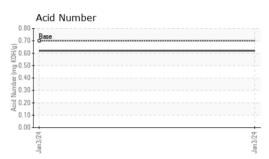
SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0888440		
Sample Date		Client Info		03 Jan 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	3		
Chromium	ppm	ASTM D5185(m)	>10	<1		
Nickel	ppm	ASTM D5185(m)	>10	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	<1		
Lead	ppm	ASTM D5185(m)	>10	1		
Copper	ppm	ASTM D5185(m)	>75	25		
Tin	ppm	ASTM D5185(m)	>10	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	0		
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	118		
Phosphorus	ppm	ASTM D5185(m)	330	503		
Zinc	ppm	ASTM D5185(m)	430	644		
Sulfur	ppm	ASTM D5185(m)	760	1216		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	4		
Sodium	ppm	ASTM D5185(m)		<1		
Potassium	ppm	ASTM D5185(m)	>20	0		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	4486		
Particles >6µm		ASTM D7647	>1300	923		
Particles >14µm		ASTM D7647	>160	34		
Particles >21µm		ASTM D7647	>40	9		
Particles >38µm		ASTM D7647	>10	2		
Particles >71µm		ASTM D7647	>3	1		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/17/12		
3:58:37) Rev: 1				Contact/Loc	ation: Service T	eam - RONVAU

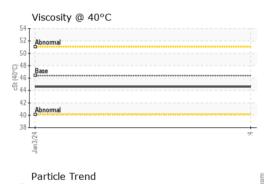


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FLUID DEGRADATION







6

barticles (1 ml) 3k 3k

> Jaquinu 2k 1k 0k

Jan3/24

Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	0.62		
VISUAL		method	limit/base	current	history1	history2
Vhite Metal	scalar	Visual*	NONE	NONE		
ellow 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 Emulsified Water	scalar scalar	Visual* Visual*	NORML >0.1	NORML NEG		
Free Water	scalar	Visual*	>0.1	NEG		
			11 11 11			
FLUID PROPERT	IES	method	limit/base	current	history1	history2
/isc @ 40°C	cSt	ASTM D7279(m)	46.4	44.6		
SAMPLE IMAGES	\$	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
					no inago	no inago
GRAPHS						
Ferrous Alloys				Particle Count		
			491,520			T <sup>26</sup>
chromium nickel			122,880			-24
TICKE			30,720	Severe		-22
			- 7,680	Abnormal		-20
Jan3/24			Jan3/24 [per 1 m]]	N		18
			<u>63</u>	1.		-20 -18 -16 -14 -12
Non-ferrous Metals	5		offind 480			+16
copper						-14
tin			2 3C	+		-12
			8	-		-10
Jan 3/24				1		-8
a			Jan3/24			6
7				<sup>4μ</sup> 6μ Acid Number	14µ 21µ	38µ 71µ
- Viscosity @ 40°C						
-			PH0.80	Base		
Viscosity @ 40°C			0.80 PHO	Base		
Viscosity @ 40°C			B 0.80 B 0.60 B 0.40 B 0.40	Base		
Viscosity @ 40°C			BAD 0.80 HO X 0.60 b to 0.40 HO X 0.40 h to 0.20 HO X 0.20 HO X 0.20	Base		
Viscosity @ 40°C			0.80 9.00 40 40 40 40 40 40 40 40 40 40 40 40 4	Base + + VC Euler		10, 17, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14

mdd

cSt (40°C)

Laboratory

Sample No. Lab Number

CALA

ISO 17025:2017

CA L4K 4P3

T:

F:

Contact: Service Team

service.team@roni.ca