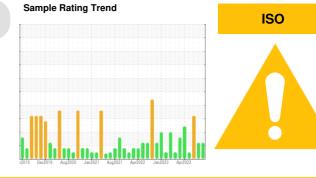


# **PROBLEM SUMMARY**

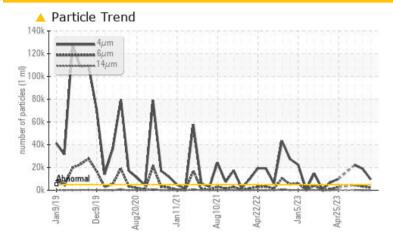
TEAM 15 156319

Component **Hydraulic System** 

PETRO CANADA HYDREX AW 46 (110 GAL)



## **COMPONENT CONDITION SUMMARY**



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status		A <sup>-</sup>	TTENTION	ABNORMAL	ABNORMAL		
Particles >4µm	ASTM D7647 >	>5000	9580	<u> </u>	<u>^</u> 22075		
Particles >6µm	ASTM D7647 >	>1300	2357	<b>▲</b> 3426	<b>4575</b>		
Oil Cleanliness	ISO 4406 (c) >	>19/17/14	20/18/13	<u>\( 21/19/12</u>	<u>A</u> 22/19/15		

**Customer Id: CANDRY** Sample No.: PC0069893 Lab Number: 02585871 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

## **RECOMMENDED ACTIONS**

Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component.

## HISTORICAL DIAGNOSIS

## 23 Aug 2023 Diag: Wes Davis





We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



## 19 Jul 2023 Diag: Kevin Marson

### VISUAL METAL



We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Light concentration of visible metal present. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

### 20 Jun 2023 Diag: Wes Davis

### NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.





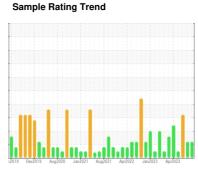
# **OIL ANALYSIS REPORT**

# TEAM 15 156319

Component

**Hydraulic System** 

PETRO CANADA HYDREX AW 46 (110 GAL)





## DIAGNOSIS

## Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## Wear

All component wear rates are normal.

## Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

## **Fluid Condition**

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

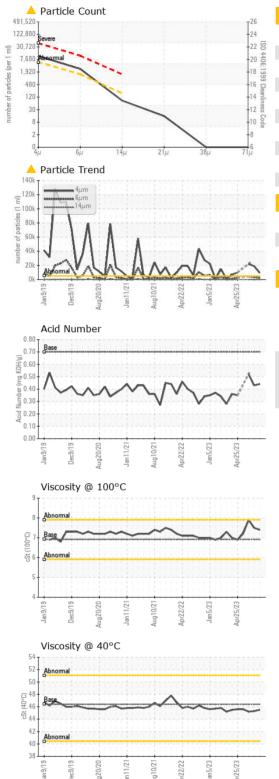
<b>L)</b>		12019 Dec20	19 Aug2020 Jan2021	Aug <sup>2</sup> 021 Apr <sup>2</sup> 022 Jan <sup>2</sup> 023	Apr2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0069893	PC0069839	PC0070440
Sample Date		Client Info		27 Sep 2023	23 Aug 2023	19 Jul 2023
Machine Age	days	Client Info		0	0	0
Oil Age	days	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	ABNORMAL
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	0	0	0
Lead	ppm	ASTM D5185(m)	>20	0	<1	<1
Copper	ppm	ASTM D5185(m)	>20	<1	<1	1
Tin	ppm	ASTM D5185(m)	>20	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	<1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1	0	0
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	0	<1	<1
Calcium	ppm	ASTM D5185(m)	50	25	48	54
Phosphorus	ppm	ASTM D5185(m)	330	350	383	470
Zinc	ppm	ASTM D5185(m)	430	442	470	566
Sulfur	ppm	ASTM D5185(m)	760	773	808	979
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<1	0	<1
Sodium	ppm	ASTM D5185(m)		7	4	3
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0
FLUID CLEAN	LINESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>9580</b>	<u> </u>	<u>^</u> 22075
Particles >6µm		ASTM D7647	>1300	<u>2357</u>	<b>▲</b> 3426	<b>△</b> 4575
Particles >14µm		ASTM D7647	>160	72	40	<u>^</u> 280
Particles >21µm		ASTM D7647	>40	13	4	<b>△</b> 67
Particles >38µm		ASTM D7647	>10	0	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<u>^</u> 20/18/13	<u>\$\text{\Delta}\$ 21/19/12</u>	<u>△</u> 22/19/15
FLUID DEGRAI	OITAC	method	limit/base	current	history1	history2

Acid Number (AN)

mg KOH/g ASTM D974\* 0.70



## **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	▲ VLITE
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	VLITE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	45.5	45.3	45.2
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	7.4	7.5	7.9
Viscosity Index (VI)	Scale	ASTM D2270*	104	126	131	146
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
				MJ:		
Color						
				(19 m)		
				gaz 80°C		
Bottom						
						1
PrtFilter				no image	no image	



Laboratory Sample No. Lab Number Unique Number : 5654937

: PC0069893 : 02585871

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 28 Sep 2023 Diagnosed : 02 Oct 2023 Diagnostician : Wes Davis

Test Package : IND 2 (Additional Tests: KV100, 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.

**Dryden Fibre** 

Box 3001, 1 Duke Street Dryden, ON **CA P8N 2Z7** 

Contact: Yvon St. Laurent yvon.stlaurent@domtar.com T: (807)223-9838

F: (807)223-9176