

OIL ANALYSIS REPORT

Area UNASSIGNED T001415 (S/N 24-M-03-2615R)

Hydraulic System

PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

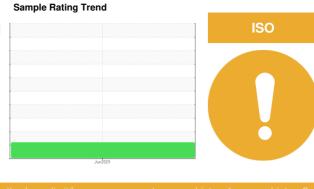
All component wear rates are normal.

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.



SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0937620		
Sample Date		Client Info		03 Jun 2024		
Machine Age	hrs	Client Info		5		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ATTENTION		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	0		
Lead	ppm	ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)	>20	<1		
Tin	ppm	ASTM D5185(m)	>20	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
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 0	current 0	history1	history2
	ppm ppm					
Boron		ASTM D5185(m)	0	0		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	0	0 <1		
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	0 <1 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 1	0 <1 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 1 0	0 <1 0 0 1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670	0 <1 0 0 1 97	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670	0 <1 0 0 1 97 607	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850	0 <1 0 0 1 97 607 803	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850	0 <1 0 1 97 607 803 1444	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 1 0 100 670 850 1600	0 <1 0 1 97 607 803 1444 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 1 0 100 670 850 1600	0 <1 0 1 97 607 803 1444 <1 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 imit/base >15	0 <1 0 0 1 97 607 803 1444 <1 current 3	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 imit/base >15	0 <1 0 1 97 607 803 1444 <1 <u>current</u> 3 0	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 binit/base >15 >20	0 <1 0 0 1 97 607 803 1444 <1 current 3 0 0	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 imit/base >15 >20 imit/base >200	0 <1 0 0 1 97 607 803 1444 <1	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 imit/base >15 >20 imit/base >200	0 <1 0 0 1 97 607 803 1444 <1	 history1 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 imit/base >15 >20 imit/base >20 >1300 >160	0 <1 0 0 1 97 607 803 1444 <1 <i>current</i> 3 0 0 0 <i>current</i> 5198 1483	 history1 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D76477 ASTM D7647	0 0 1 0 100 670 850 1600 imit/base >15 >20 imit/base >20 >1300 >160	0 <1 0 0 1 97 607 803 1444 <1 current 3 0 0 0 0 current 5198 5198 1483 157	 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D76477 ASTM D76477 ASTM D7647	0 0 0 1 1 0 100 670 850 1600 1600 1000 1000 1000 1000 1000 10	0 <1 0 0 1 97 607 803 1444 <1 current 3 0 0 0 0 5198 1483 157 44	 history1 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 1 1 0 100 670 850 1600 1600 1000 1000 1000 1000 1000 10	0 <1 0 0 1 97 607 803 1444 <1 current 3 0 0 0 0 current 5 5198 1483 157 44 5	 history1 history1 history1	 history2 history2 history2



Acid Number (mg KOH/g)

OIL ANALYSIS REPORT

ASTM D974*

Visual*

ASTM D7279(m)

0.60

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

>0.05

47.9

0.80

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

46.5

no image

no image

Particle Trend	FLUID DEGR	ADATION
4μm 6μm 14μm	Acid Number (A	N) mg KOH
	VISUAL	
	White Metal	scala
	Yellow Metal	scala
	Precipitate	scala
	Bilt	scala
	Debris	scala
	Sand/Dirt	scala
le Trend	Appearance	scala
4μm 6μm	Odor	scala
14μm	Emulsified Wate	er scal
	Free Water	scala
	FLUID PROP	ERTIES
	Visc @ 40°C	cSt
	SAMPLE IMA	GES
d Number	Color	
ie	Bottom	
	Bollom	
	GRAPHS	
	Ferrous Alloys	
	10 -	

mdo

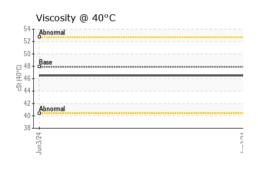
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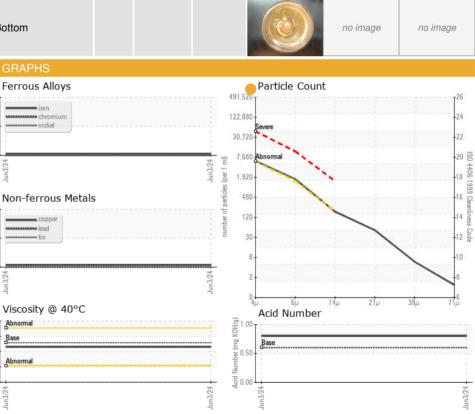
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Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RWF Industries** CALA Sample No. : WC0937620 Received : 12 Jun 2024 873 Devonshire Ave. Lab Number : 02641436 Tested : 13 Jun 2024 Woodstock, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5798975 Diagnosed : 13 Jun 2024 - Wes Davis CA N4S 8Z4 Test Package : MOB 2 (Additional Tests: TAN Auto) Contact: Tami Arnold To discuss this sample report, contact Customer Service at 1-800-268-2131. tamia@rwfbron.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: Validity of results and interpretation are based on the sample and information as supplied. F: (519)421-0028

Report Id: RWFWOO [WCAMIS] 02641436 (Generated: 06/13/2024 10:13:13) Rev: 1

Contact/Location: Tami Arnold - RWFWOO

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