



#### Machine Id LIEBHERR PR776 24302

Splitter Box

# PETRO CANADA HYDREX AW 46 (--- GAL)

# RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

#### **WEAR**

All component wear rates are normal.

### CONTAMINATION

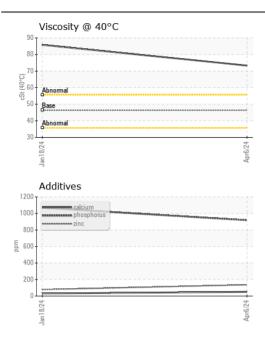
There is no indication of any contamination in the oil.

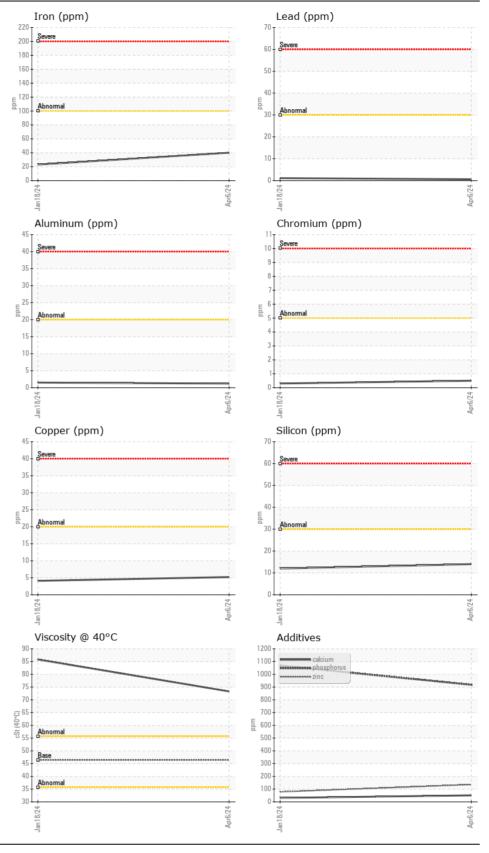
## FLUID CONDITION

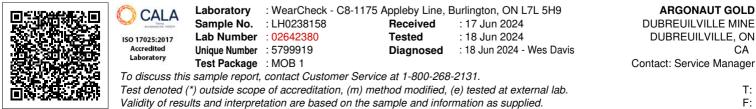
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0238158	LH0265122	
Sample Date		Client Info		06 Apr 2024	18 Jan 2024	
Machine Age	hrs	Client Info		9464	6158	
Oil Age	hrs	Client Info		0	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	N/A	
Filter Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
			100	40	00	
Iron	ppm	ASTM D5185(m)	>100	40	23	
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	00	0	0	
Aluminum	ppm	ASTM D5185(m)	>20	1	2	
Lead	ppm	ASTM D5185(m)	>30	<1	1	
Copper	ppm	ASTM D5185(m)	>20	5	4	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
White Metal	scalar	Visual*	NONE	NONE	NONE	
Vallaus Matal	agalar	Vieuel*				
Yellow Metal	scalar	Visual*	NONE	LIGHT	NONE	
Silicon	ppm	ASTM D5185(m)	>30	14	12	
Silicon	ppm	ASTM D5185(m)	>30	14	12	
Silicon Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>30 >20	14 5	12 4	
Silicon Potassium Water	ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method	>30 >20 >0.1	14 5 NEG	12 4 NEG	
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual*	>30 >20 >0.1 NONE	14 5 NEG NONE	12 4 NEG NONE	
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual*	>30 >20 >0.1 NONE NONE	14 5 NEG NONE NONE	12 4 NEG NONE NONE	
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE	14 5 NEG NONE NONE NONE	12 4 NEG NONE NONE NONE	  
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NONE NORML	14 5 NEG NONE NONE NONE NORML	12 4 NEG NONE NONE NONE NORML	   
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NORML NORML >0.1	14 5 NEG NONE NONE NONE NORML NORML NEG	12 4 NEG NONE NONE NORML NORML NEG	   
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NORML NORML >0.1	14 5 NEG NONE NONE NORML NORML NEG 3	12 4 NEG NONE NONE NORML NORML NEG 2	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML >0.1 >25 0	14 5 NEG NONE NONE NORML NORML NEG 3 82	12 4 NEG NONE NONE NORML NORML NEG 2 108	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML NORML >0.1 >25 0 0	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORML NORML >0.1 >25 0 0 0	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1 0	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar gpm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORME NORML >0.1 >25 0 0 0 0 0	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1 0 <1	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML >0.1 >25 0 0 0 0 0 0 0 0 0 0 0	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1 0 <1 2	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0 0 1	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML NORML >0.1 >25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1 0 <1 2 51	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0 0 1 31	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;30</li> <li>&gt;20</li> <li>&gt;0.1</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;25</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>50</li> <li>330</li> </ul>	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1 0 <1 2 51 918	12 4 NEG NONE NONE NORML NORML NEG 2 108 2 108 <1 0 0 1 0 1 31	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;30</li> <li>&gt;20</li> <li>&gt;0.1</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;25</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>50</li> <li>330</li> <li>430</li> </ul>	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1 0 <1 0 <1 2 51 918 136	12 4 NEG NONE NONE NORML NORML NEG 2 108 2 108 4 108 1 0 0 1 31 31 1068	
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;30</li> <li>&gt;20</li> <li>&gt;0.1</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;25</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>50</li> <li>330</li> </ul>	14 5 NEG NONE NONE NORML NORML NEG 3 82 <1 0 <1 2 51 918	12 4 NEG NONE NONE NORML NORML NEG 2 108 2 108 <1 0 0 1 0 1 31	

Contact/Location: Service Manager - ARGDUB







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