

Current

History1

History2



RECOMMENDATION

## Machine Id **LIEBHERR PR776 24302**

Left Final Drive

PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)

Test

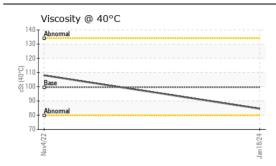
UOM Method

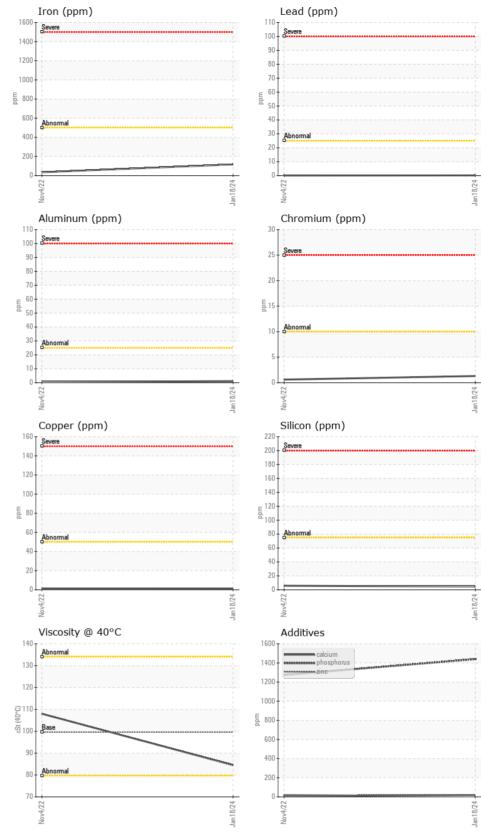
Limit/Abn

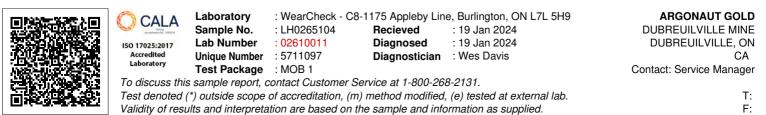
Resample at the next service interval to monitor.	Sample Number		Client Info
	Sample Date		Client Info
	Machine Age	hrs	Client Info
	Oil Age	hrs	Client Info
	Filter Age	hrs	Client Info
	Oil Changed		Client Info
	Filter Changed		Client Info
	Sample Status		
WEAR	Iron	nnm	ASTM D5185(m)
			. ,
All component wear rates are normal.			
			. ,
			( )
	Sample StatusIronppmASTM D5185(m)ChromiumppmASTM D5185(m)NickelppmASTM D5185(m)TitaniumppmASTM D5185(m)SilverppmASTM D5185(m)AluminumppmASTM D5185(m)LeadppmASTM D5185(m)CopperppmASTM D5185(m)TinppmASTM D5185(m)VanadiumppmASTM D5185(m)VanadiumppmASTM D5185(m)White MetalscalarVisual*		
	Lead		
	Copper		ASTM D5185(m)
	Tin	ppm	ASTM D5185(m)
	Vanadium	ppm	ASTM D5185(m)
	White Metal	scalar	Visual*
	Yellow Metal	scalar	Visual*
	Cilicon		
	Silicon Potassium	ppm	ASTM D5185(m) ASTM D5185(m)
There is no indication of any contamination in the oil.	Water	ppm	WC Method
	Silt	scalar	Visual*
	Debris	scalar	Visual*
	Sand/Dirt	scalar	Visual*
	Appearance	scalar	Visual*
	Odor	scalar	Visual*
	Emulsified Water	scalar	Visual*
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)
	Barium	ppm	ASTM D5185(m)
	Molybdenum	ppm	ASTM D5185(m)
	Manganese	ppm	ASTM D5185(m)
	Magnesium	ppm	ASTM D5185(m)

1001	00101	Mothod	LITTIO/ NOT	ouncill	Thotory	THOLOTYL
Sample Number		Client Info		LH0265104	LH0151026	
Sample Date		Client Info		18 Jan 2024	04 Nov 2022	
Machine Age	hrs	Client Info		6158	782	
Oil Age	hrs	Client Info		0	0	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	Not Changd	
Filter Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
Iron	ppm	ASTM D5185(m)	>500	116	35	
Chromium	ppm	ASTM D5185(m)	>10	1	<1	
Nickel	ppm	ASTM D5185(m)	>10	- <1	<1	
Titanium	ppm	ASTM D5185(m)	210	0	<1	
Silver		ASTM D5185(m)		0	0	
Aluminum	ppm	( )	. 25	1		
Lead	ppm	ASTM D5185(m)	>25		<1	
	ppm	ASTM D5185(m)	>25	<1	0	
Copper	ppm	ASTM D5185(m)	>50	1	<1	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
White Metal	scalar	Visual*	NONE	NONE	NONE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185(m)	>75	5	6	
Silicon Potassium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	>75 >20	5 2	6	
Potassium		ASTM D5185(m)	>20	2	1	 
Potassium Water	ppm	ASTM D5185(m) WC Method	>20 >0.2	2 NEG	1 NEG	  
Potassium Water Silt	ppm scalar	ASTM D5185(m) WC Method Visual*	>20 >0.2 NONE	2 NEG LIGHT	1 NEG NONE	
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185(m) WC Method Visual* Visual*	>20 >0.2 NONE NONE	2 NEG LIGHT NONE	1 NEG NONE NONE	
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual*	>20 >0.2 NONE NONE NONE	2 NEG LIGHT NONE NONE	1 NEG NONE NONE NONE	   
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NONE	2 NEG LIGHT NONE NONE NORML	1 NEG NONE NONE NORML	   
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NORML	2 NEG LIGHT NONE NONE NORML NORML NEG	1 NEG NONE NONE NORML NORML NEG	   
Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NORML NORML >0.2	2 NEG LIGHT NONE NORML NORML NEG	1 NEG NONE NONE NORML NORML NEG	   
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	2 NEG LIGHT NONE NONE NORML NORML NEG	1 NEG NONE NONE NORML NORML NEG	   
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2	2 NEG LIGHT NONE NORML NORML NEG <1 197 0	1 NEG NONE NONE NORML NORML NEG 2 147	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2	2 NEG LIGHT NONE NORML NORML NEG <1 197	1 NEG NONE NONE NORML NORML NEG 2 147 <1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2	2 NEG LIGHT NONE NORML NORML NEG <1 197 0 <1 (1)	1 NEG NONE NONE NORML NORML NEG 2 147 <1 1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	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)	>20 >0.2 NONE NONE NORML NORML >0.2 328 1 1	2 NEG LIGHT NONE NORML NORML NEG <1 197 0 <1 197 0 <1 197	1 NEG NONE NONE NORML NORML NEG 2 147 <1 1 1 1 1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	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)	>20 >0.2 NONE NONE NORML NORML >0.2 328 1 328 1 1 7	2 NEG LIGHT NONE NORML NORML NEG <1 197 0 <1 <1 <1 <1 <1 8	1 NEG NONE NONE NORML NORML NEG 2 147 <1 1 1 1 1 1 1 1 1 1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	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;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.2</li> <li>328</li> <li>1</li> <li>1</li> <li>7</li> <li>1145</li> </ul>	2 NEG LIGHT NONE NORML NORML NEG <1 197 0 <1 <1 <1 <1 <1 8 1440	1 NEG NONE NONE NORML NORML NEG 2 147 <1 1 1 1 1 1 1 1 1 1 8 1 2 147	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Malybdenum Manganese Magnesium Calcium Phosphorus	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	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) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2 328 1 328 1 1 7 3 3	2 NEG LIGHT NONE NORML NORML NEG <1 197 0 <1 197 0 <1 <1 4 197 0 <1 8 1440 22	1 NEG NONE NONE NORML NORML NEG 2 147 <1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	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;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.2</li> <li>328</li> <li>1</li> <li>1</li> <li>7</li> <li>1145</li> </ul>	2 NEG LIGHT NONE NORML NORML NEG <1 197 0 <1 <1 <1 <1 <1 8 1440	1 NEG NONE NONE NORML NORML NEG 2 147 <1 1 1 1 1 1 1 1 1 1 8 1 2 147	

Contact/Location: Service Manager - ARGDUB







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