

UNASSIGNED Machine Id 45 KINGSBRIDGE

Diesel Engine

PETRO CANADA XR 4 SAE 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0940163		
	Sample Date		Client Info		22 May 2024		
	Machine Age	hrs	Client Info		382		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>100	4		
	Chromium	ppm	ASTM D5185(m)		0		
Metal levels are typical for a new component breaking in.	Nickel	ppm		>4	<1		
	Titanium	ppm	ASTM D5185(m)		1		
	Silver	ppm	ASTM D5185(m)	>3	0		
	Aluminum	ppm	ASTM D5185(m)		1		
	Lead	ppm	ASTM D5185(m)		0		
	Copper	ppm	ASTM D5185(m)		3		
	Tin	ppm		>15	0		
	Vanadium	ppm	ASTM D5185(m)	10	0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal		Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	2		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	<1		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*	>3	0		
	Nitration	Abs/cm	ASTM D7624*	>20	5.6		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	18.2		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
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.	Sodium	ppm	ASTM D5185(m)		2		
	Boron	ppm	ASTM D5185(m)	1	32		
	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		44		
	Manganese	ppm	ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)	10	456		
	Calcium	ppm	ASTM D5185(m)	3032	1618		
	-			-			

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

959

1130

2886

13.4

99.1

13.6

137

Phosphorus ppm ASTM D5185(m) 1054

Visc @ 40°C cSt ASTM D7279(m) 117.7

Viscosity Index (VI) Scale ASTM D2270* 138

ppm

ASTM D5185(m) 1332

ASTM D7279(m) 15.4

ppm ASTM D5185(m) 3985

Abs/.1mm ASTM D7414* >25



