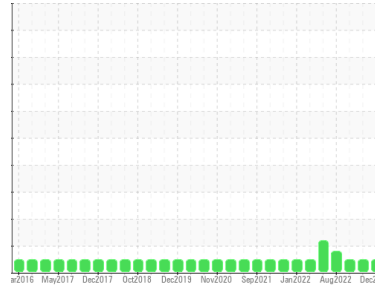




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**2H28**  
 Machine Id  
**KENWORTH T370 JTK9141 (S/N 2NKHHM7X1FM440647)**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA 15W40 (18 QTS)**

## DIAGNOSIS

### Recommendation

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

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>ARI0007342</b>	ARI0005649	ARI0005697
Sample Date	Client Info		<b>27 Dec 2023</b>	22 Feb 2023	07 Nov 2022
Machine Age	mls	Client Info	<b>116157</b>	107165	103131
Oil Age	mls	Client Info	<b>0</b>	4034	3000
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>11</b>	22	20
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	3
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	10	10
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >330	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>2</b>	9	15
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>53</b>	61	61
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	<b>917</b>	987	930
Calcium	ppm	ASTM D5185m	<b>972</b>	1086	1057
Phosphorus	ppm	ASTM D5185m	<b>1029</b>	1013	1007
Zinc	ppm	ASTM D5185m	<b>1217</b>	1325	1249
Sulfur	ppm	ASTM D5185m	<b>2978</b>	3557	3856

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	5	5
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>6</b>	20	23

## INFRA-RED

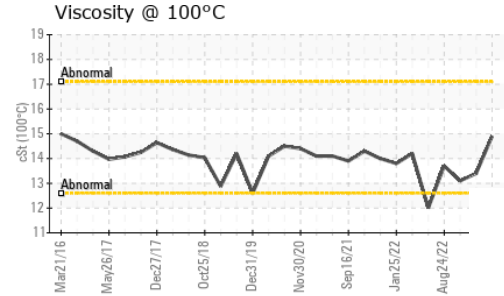
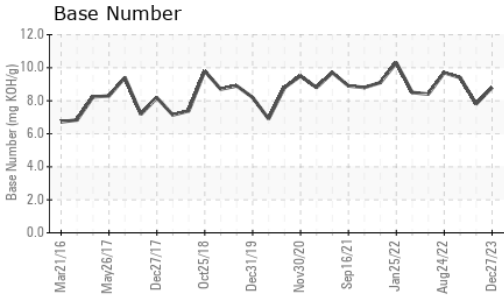
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.1</b>	8.8	9.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.8</b>	18.7	19.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.6</b>	15.3	16
Base Number (BN)	mg KOH/g	ASTM D2896	<b>8.8</b>	7.8	9.4



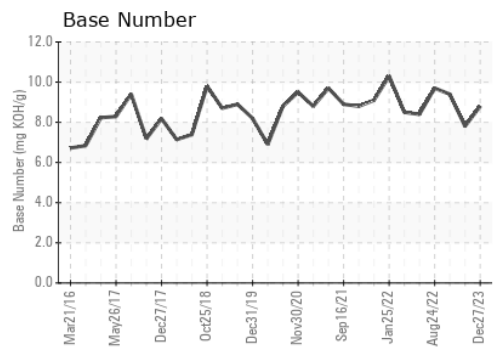
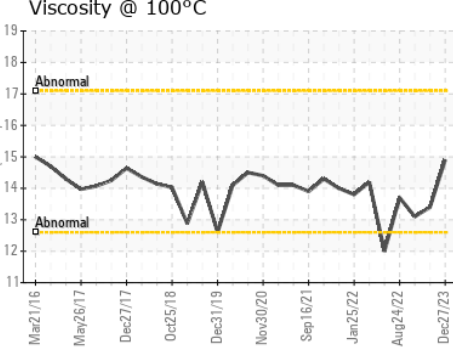
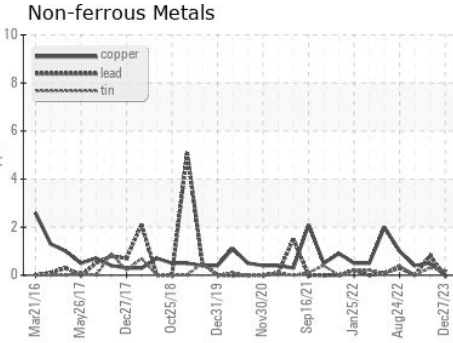
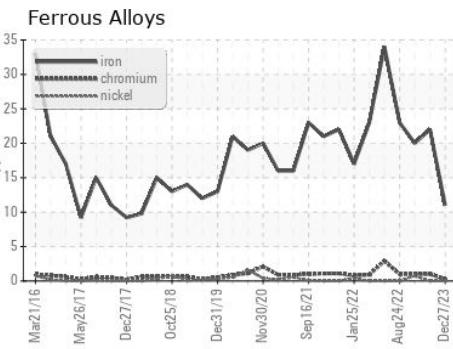
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	<b>14.9</b>	13.4	13.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ARI0007342 **Received** : 10 Jan 2024  
**Lab Number** : **06056375** **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822324 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**INSITUFORM TECHNOLOGIES, INC**  
 253F WORCESTER ROAD  
 CHARLTON, MA  
 US 01507  
 Contact: NELSON LEITE  
 NLEITE@INSITUFORM.COM  
 T: (774)364-1927  
 F: (508)248-1709

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)