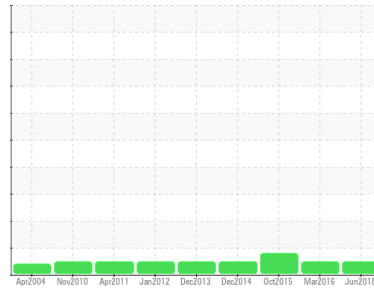




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

TIMBCO 41

Component

Diesel Engine

Fluid

AMSOIL (PCO) SYN HD DIESEL15W40 (22 LTR)

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	history 1	history 2
Sample Number	Client Info		WC0294222	WC932822	WC932472
Sample Date	Client Info		15 Jun 2018	10 Mar 2016	15 Oct 2015
Machine Age	hrs	Client Info	29172	27165	26500
Oil Age	hrs	Client Info	900	665	1500
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185(m)	>90	22	82	▲ 106
Chromium	ppm	ASTM D5185(m)	>20	<1	5	5
Nickel	ppm	ASTM D5185(m)	>2	<1	2	2
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	6	4
Lead	ppm	ASTM D5185(m)	>40	1	4	11
Copper	ppm	ASTM D5185(m)	>330	5	3	6
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Antimony	ppm	ASTM D5185(m)		2	32	297
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		<1	0	<1

ADDITIVES

	method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185(m)	7.2	2	2	2
Barium	ppm	ASTM D5185(m)	0.0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0.0	<1	1	2
Manganese	ppm	ASTM D5185(m)		<1	<1	1
Magnesium	ppm	ASTM D5185(m)	460	32	17	18
Calcium	ppm	ASTM D5185(m)	2996	3595	4715	5139
Phosphorus	ppm	ASTM D5185(m)	1076	1907	1442	2505
Zinc	ppm	ASTM D5185(m)	1208	2377	1786	3080
Sulfur	ppm	ASTM D5185(m)	4236	5318	4681	6760
Lithium	ppm	ASTM D5185(m)		0	<1	<1

CONTAMINANTS

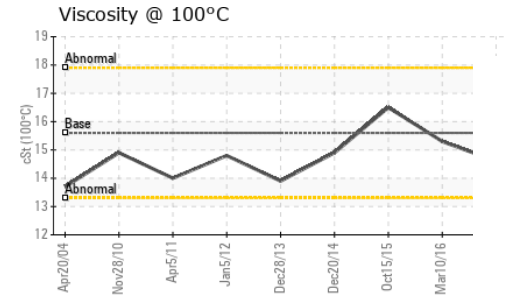
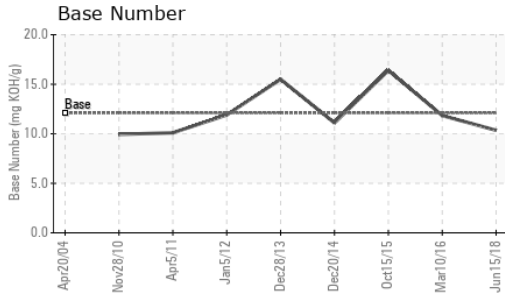
	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185(m)	>25	6	18	10
Sodium	ppm	ASTM D5185(m)		2	7	14
Potassium	ppm	ASTM D5185(m)	>20	1	3	3

INFRA-RED

	method	limit/base	current	history 1	history 2	
Soot %	%	ASTM D7844*	>6	0.1	0.9	1.7
Nitration	Abs/cm	ASTM D7624*	>25	7.5	11.3	12.8
Sulfation	Abs./1mm	ASTM D7415*	>35	18.6	65.3	68.7



OIL ANALYSIS REPORT

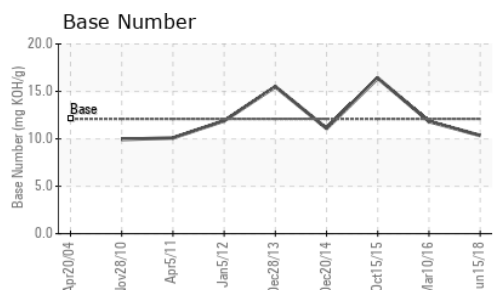
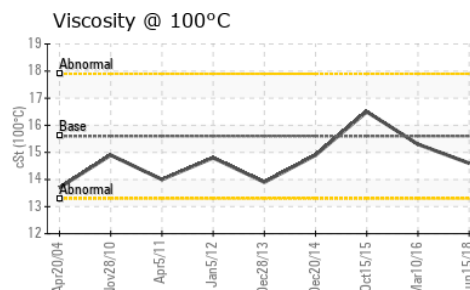
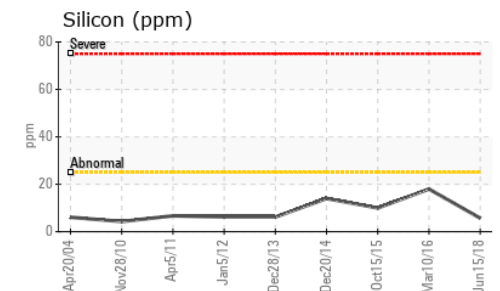
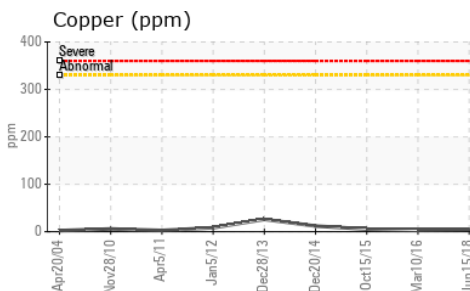
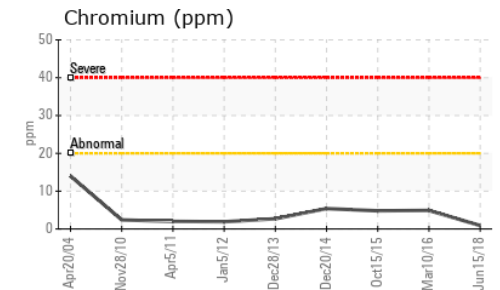
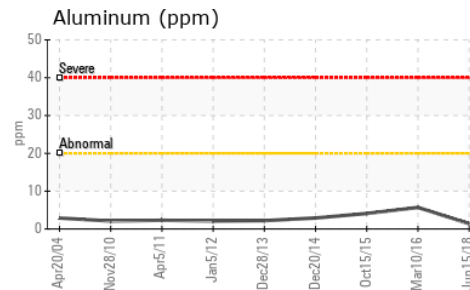
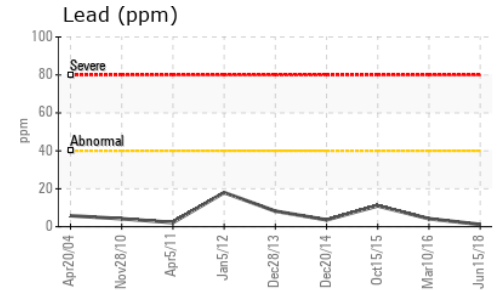
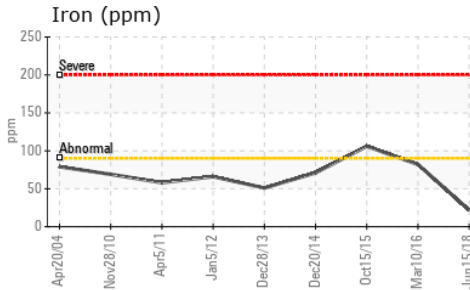


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	ASTM D7414*	>25	10.7	69.9	67.4
Base Number (BN)	mg KOH/g	ASTM D2896*	12.1	10.35	11.84	16.4

VISUAL		method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.6	15.3	16.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0294222 **Received** : 21 Jun 2018
Lab Number : **02223476** **Diagnosed** : 22 Jun 2018
Unique Number : 4706606 **Diagnostician** : Kevin Marson
Test Package : MOB 2

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.