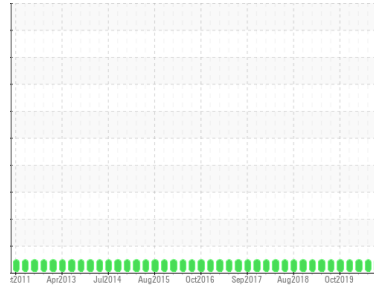




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
STERLING 54

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (12 GAL)

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			RW0001422	RW0001413	RW0001405
Sample Date	Client Info			19 Sep 2020	03 Aug 2020	26 Jul 2020
Machine Age	hrs	Client Info		26249	25930	25645
Oil Age	hrs	Client Info		319	285	305
Oil Changed	Client Info			Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	11	10	6
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	<1	<1	1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	3	6	2
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Antimony	ppm	ASTM D5185m		0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	91	93	78
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	60	58	45
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	369	364	319
Calcium	ppm	ASTM D5185m	3000	1763	1807	1782
Phosphorus	ppm	ASTM D5185m	1150	1013	1036	1007
Zinc	ppm	ASTM D5185m	1350	1248	1281	1126
Sulfur	ppm	ASTM D5185m	4250	2882	3004	2653

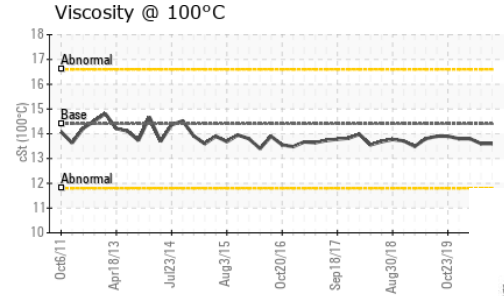
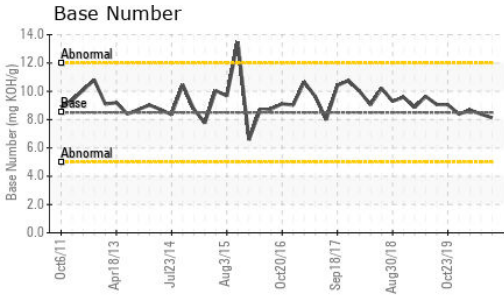
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	3	4
Sodium	ppm	ASTM D5185m	>158	<1	<1	2
Potassium	ppm	ASTM D5185m	>20	<1	1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	5.8	5.7	5.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	20.2	19.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15	14.7	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.13	8.39	8.67



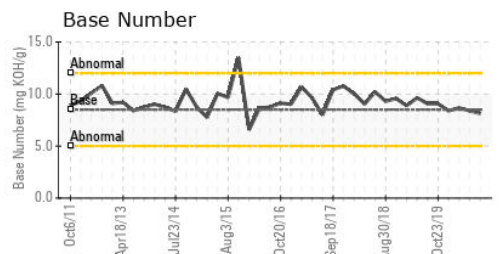
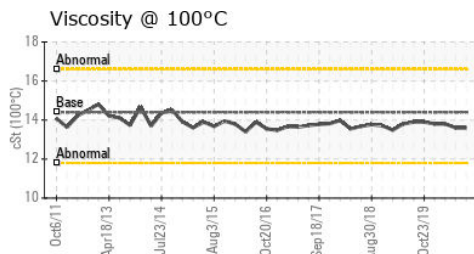
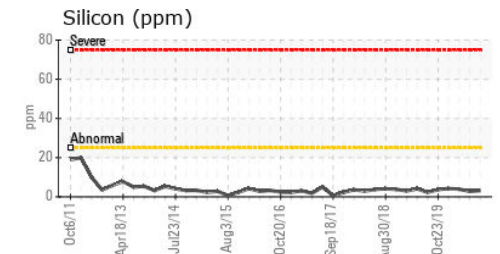
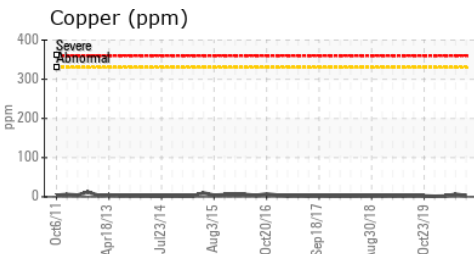
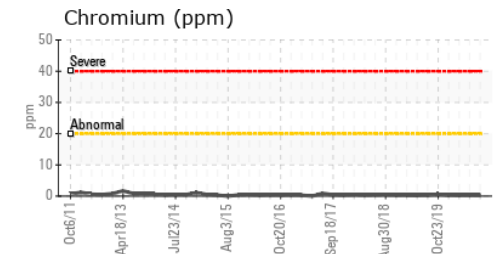
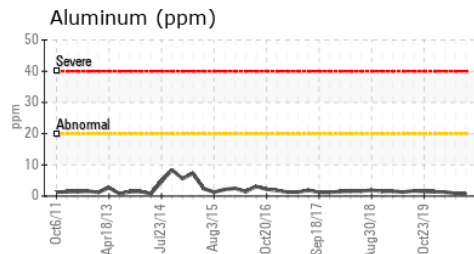
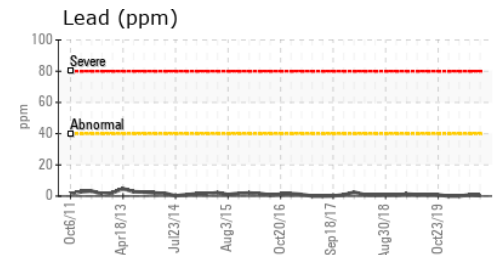
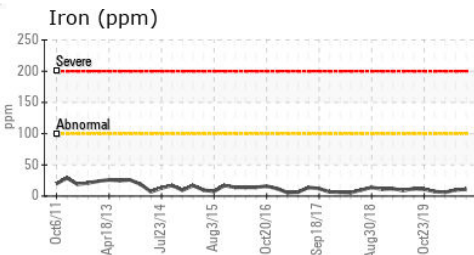
OIL ANALYSIS REPORT



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	14.4	13.6	13.6	13.8

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RW0001422 **Received** : 29 Sep 2020
Lab Number : 05076757 **Diagnosed** : 30 Sep 2020
Unique Number : 9191988 **Diagnostician** : Wes Davis
Test Package : MOB 2

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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)