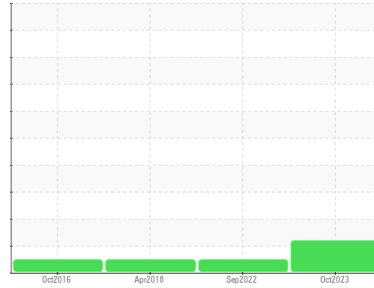




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**E120341264 - BEAR MTN TOWER 73365225**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (3 GAL)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a moderate amount of fuel present in the oil.

### ▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0834370</b>	WC0699378	WCM1384104
Sample Date	Client Info	<b>02 Oct 2023</b>	16 Sep 2022	19 Apr 2018
Machine Age	hrs	Client Info	458	3196
Oil Age	hrs	Client Info	0	150
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >90	<b>2</b>	6	4
Chromium	ppm	ASTM D5185m >20	<b>0</b>	4	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	5	2
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m >40	<b>0</b>	4	1
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	<1	6
Tin	ppm	ASTM D5185m >15	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 250	<b>18</b>	422	23
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 100	<b>57</b>	80	32
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 450	<b>815</b>	406	444
Calcium	ppm	ASTM D5185m 3000	<b>998</b>	1619	919
Phosphorus	ppm	ASTM D5185m 1150	<b>928</b>	1042	667
Zinc	ppm	ASTM D5185m 1350	<b>1124</b>	1279	737
Sulfur	ppm	ASTM D5185m 4250	<b>3214</b>	4016	2044

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>4</b>	7	2
Sodium	ppm	ASTM D5185m >158	<b>2</b>	1	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	0
Fuel	%	ASTM D3524 >3.0	<b>▲ 5.6</b>	<1.0	<1.0

## INFRA-RED

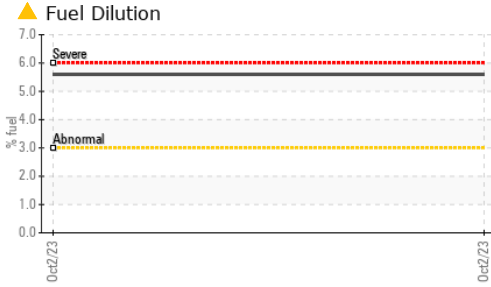
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >6	<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.7</b>	5.7	7.
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.1</b>	20.3	17.

## FLUID DEGRADATION

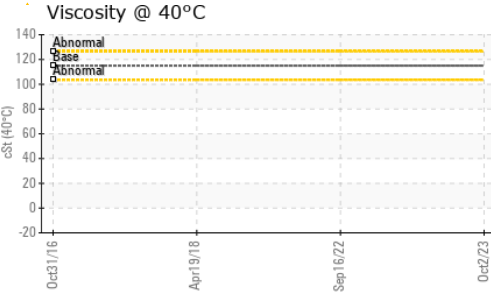
method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.0</b>	14.2	14.
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>9.7</b>	9.4	---



# OIL ANALYSIS REPORT

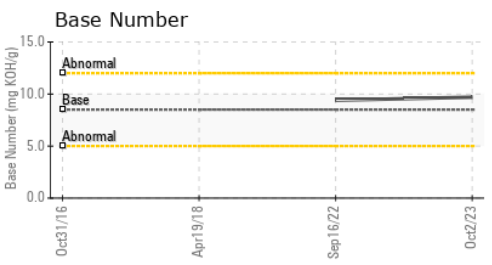
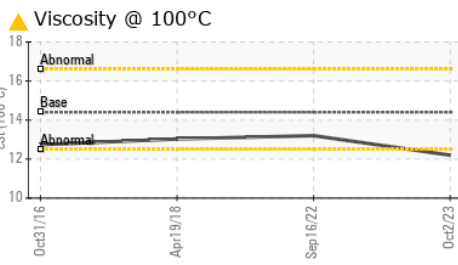
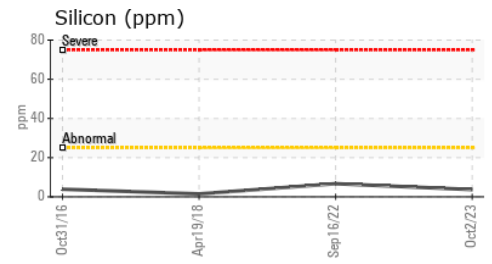
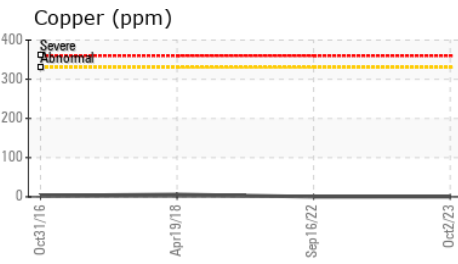
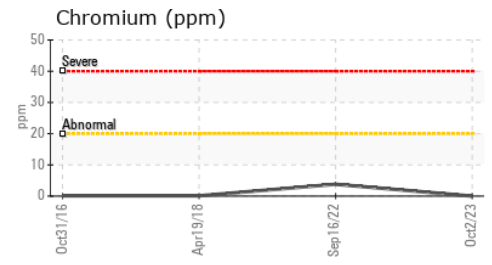
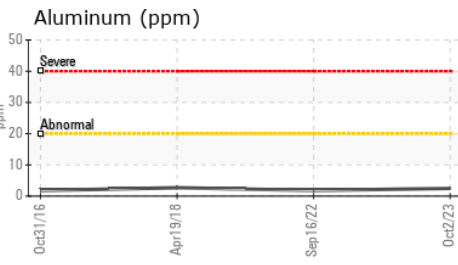
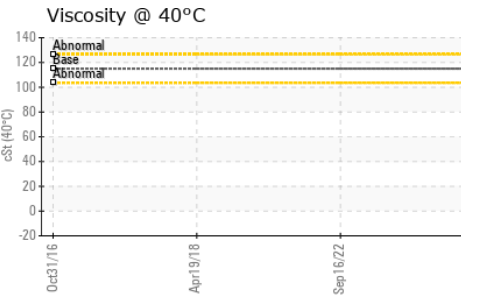
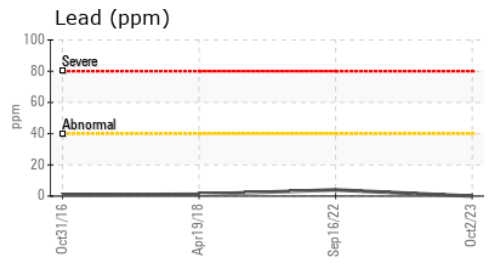
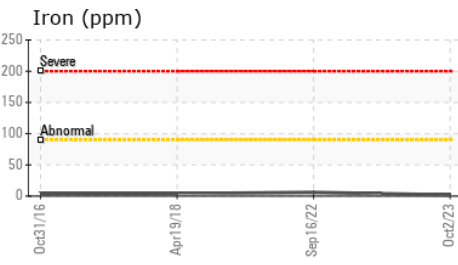
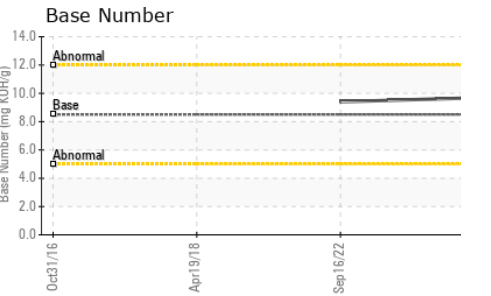


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	14.4	▲ 12.2	13.2	13.03

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0834370 **Received** : 03 Oct 2023  
**Lab Number** : 05967371 **Diagnosed** : 05 Oct 2023  
**Unique Number** : 10673922 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, KV40, PercentFuel, TBN )

**GEN TECH LTD**  
 3017 RT 9W  
 NEW WINDSOR, NY  
 US 12553  
 Contact: JOE SAYEGH  
 joe@gentechltd.com  
 T: (845)568-0500  
 F: (845)568-3073

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)