

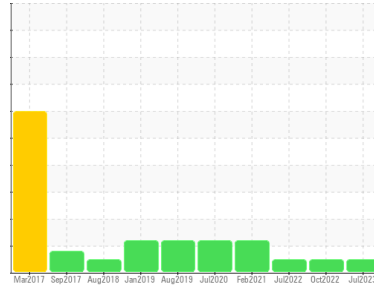


# OIL ANALYSIS REPORT



Area  
**CONSTRUCTORS, INC**  
 Machine Id  
**CATERPILLAR 1717**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL CLEAN 10W30 5000 (--- GAL)**

Sample Rating Trend



**NORMAL**

## 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>SBP0004542</b>	SBP0002075	SBP0001465
Sample Date	Client Info	<b>14 Jul 2023</b>	10 Oct 2022	22 Jul 2022
Machine Age	hrs	<b>8806</b>	7957	7333
Oil Age	hrs	<b>534</b>	624	517
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >100	<b>26</b>	10	8
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>6</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>4</b>	37	52
Barium	ppm	ASTM D5185m	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>59</b>	42	40
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>976</b>	579	572
Calcium	ppm	ASTM D5185m	<b>1243</b>	1608	1717
Phosphorus	ppm	ASTM D5185m	<b>1045</b>	784	788
Zinc	ppm	ASTM D5185m	<b>1318</b>	951	945
Sulfur	ppm	ASTM D5185m	<b>3730</b>	3033	3253

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>4</b>	5	4
Sodium	ppm	ASTM D5185m	<b>6</b>	0	4
Potassium	ppm	ASTM D5185m >20	<b>3</b>	0	<1
Chlorine	ppm	ASTM D5185m	<b>---</b>	---	---

## INFRA-RED

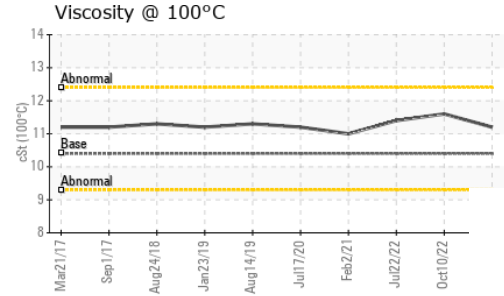
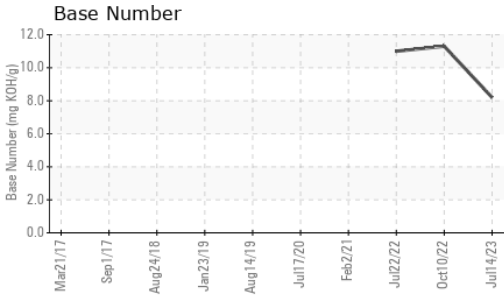
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	<b>0.4</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.3</b>	7.1	7.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.8</b>	22.9	22.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.7</b>	20.4	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	<b>8.2</b>	11.3	11.0



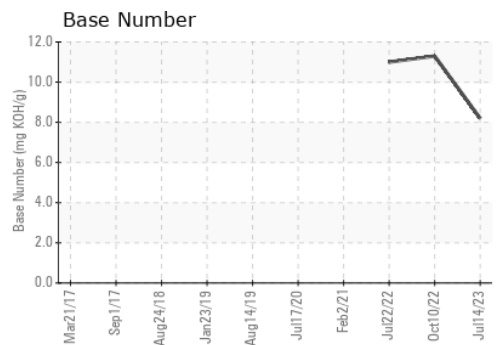
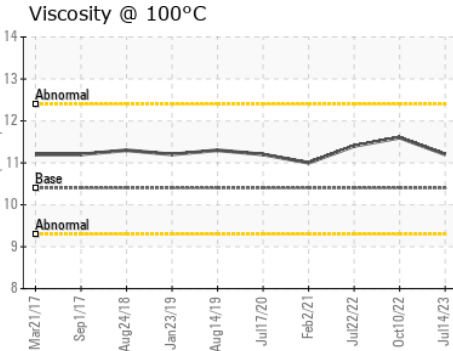
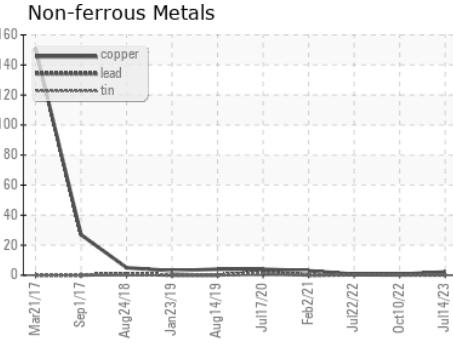
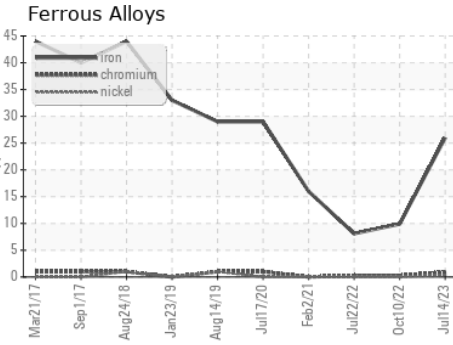
# OIL ANALYSIS REPORT



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	10.4	<b>11.2</b>	11.6	11.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0004542 **Received** : 17 Jul 2023  
**Lab Number** : 05900670 **Diagnosed** : 18 Jul 2023  
**Unique Number** : 10562026 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**Constructors Inc. - 603659**  
 1815 Y Street  
 Lincoln, NE  
 US 68508  
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 jackl@constructorslincoln.com  
 T: (402)434-2157  
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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)