

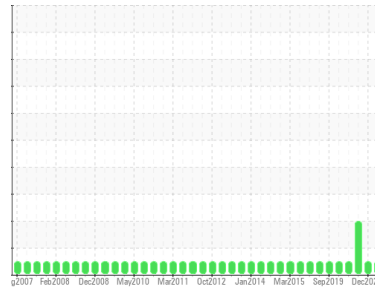


# OIL ANALYSIS REPORT



Machine Id  
**CATERPILLAR RIG 77-B GENERATOR 2 (S/N 026597)**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON URSA SUPER PLUS EC 15W40 (170 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>RP0018383</b>	RP0028036	RP195701
Sample Date	Client Info	<b>10 Aug 2023</b>	24 Dec 2022	09 Apr 2020
Machine Age	hrs	<b>0</b>	38594	37784
Oil Age	hrs	<b>0</b>	0	796
Oil Changed	Client Info	<b>N/A</b>	N/A	Changed
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >6	<b>&lt;1.0</b>	<1.0	0.9
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>2</b>	5	3
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	0
Nickel	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >25	<b>2</b>	2	3
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	1	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	1	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Antimony	ppm ASTM D5185m	<b>---</b>	---	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>6</b>	285	372
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>62</b>	101	129
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m	<b>968</b>	501	562
Calcium	ppm ASTM D5185m	<b>1076</b>	1116	1486
Phosphorus	ppm ASTM D5185m 1200	<b>1065</b>	541	726
Zinc	ppm ASTM D5185m 1300	<b>1291</b>	704	875

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	5	5
Sodium	ppm ASTM D5185m	<b>2</b>	3	5
Potassium	ppm ASTM D5185m >20	<b>1</b>	2	0
Water	% ASTM D6304 >0.2	<b>---</b>	---	▲ 0.337
ppm Water	ppm ASTM D6304 >2000	<b>---</b>	---	▲ 3370

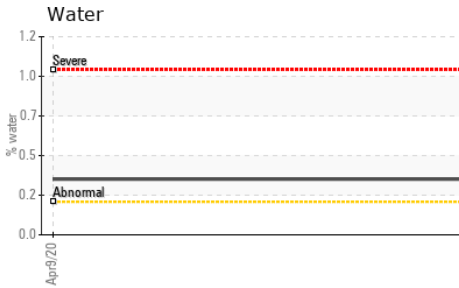
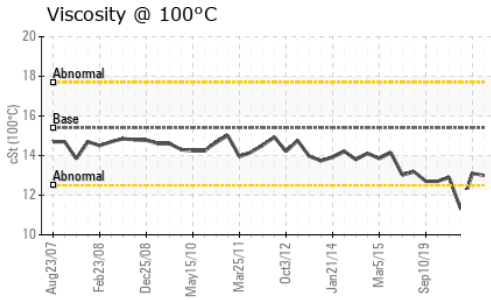
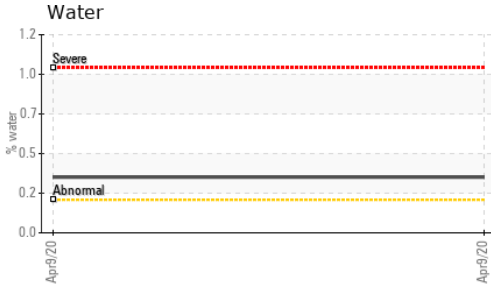
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>7.0</b>	7.3	8.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.0</b>	20.9	18.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.5</b>	16.3	16.6
Base Number (BN)	mg KOH/g ASTM D2896 8.0	<b>10.54</b>	7.70	4.47

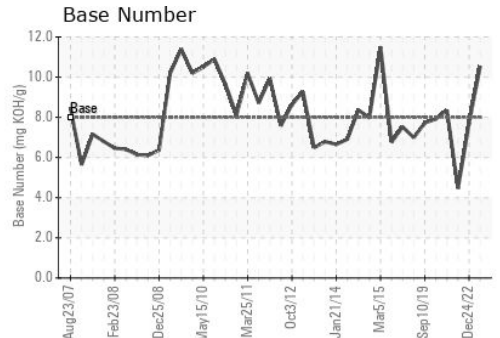
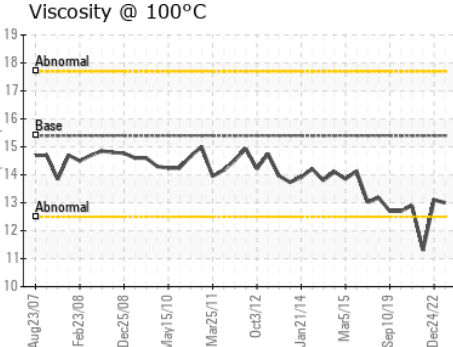
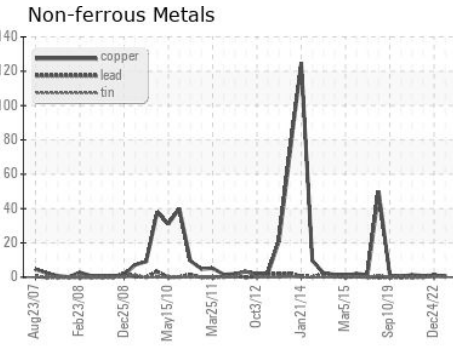
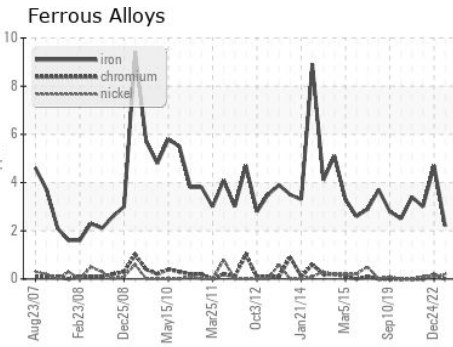
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.0</b>	13.1 ▲ 11.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0018383 **Received** : 11 Aug 2023  
**Lab Number** : 05922400 **Diagnosed** : 14 Aug 2023  
**Unique Number** : 10602347 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: FT-IR, KV100, TBN )

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)

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